‘Is Sand Mining Killing Our Rivers?’

a series of virtual dialogues

River Sand Mining North India

Oct 31, 2020

India Rivers Week 2020
North India
6 States; 3 Union territories
What is Sand

- Natural, Common, Mostly Non-Renewable Resource
- Formed by weathering, breaking down of rocks
- Finer than gravel and coarser than silt
- Most mined natural resource after water (~50 billion T annually)
- River sand, Sharp sand, Builders sand
Bajri (Balu)
Gravels
Silt
Sand
Pebbles
**Most affected rivers**

**Jammu & Kashmir** - Jhelum, Chenab, Ravi, Tawi, Arin and Papchan

**Himachal Pradesh**: Beas, Chaki, Swan, Giri, Bata, Yamuna, Sutlej, Tons, Pabbar, Neugal, Binwa, Sainj, Kansa, Suketi

**Uttarakhand**: Gola, Nandaur, Ganga, Kosi, Dabka, Yamuna, Khoh, Asan, Alaknanda, Pindar, Saryu, Sharda

**Punjab**: Satuj, Beas, Swan, Ghaggar

**Haryana**: Yamuna, Ghaggar, Somb, Markanda, Tangri

**Uttar Pradesh**: Ganga, Yamuna, Chambal, Betwa, Ken, Sone
### Inter-state Rivers worst affected by sand mining

<table>
<thead>
<tr>
<th>Region</th>
<th>Affected River</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jammu &amp; Kashmir-Punjab</td>
<td>Tawi river</td>
</tr>
<tr>
<td>Himachal-Punjab</td>
<td>Chaki, Swan rivers</td>
</tr>
<tr>
<td>Uttarakhand-Himachal</td>
<td>Yamuna</td>
</tr>
<tr>
<td>Uttarakhand-Uttar Pradesh</td>
<td>Khoh river</td>
</tr>
<tr>
<td>Haryana-Uttar Pradesh</td>
<td>Yamuna</td>
</tr>
</tbody>
</table>
### Sand Consumption in North Zone in FY 2017

<table>
<thead>
<tr>
<th>SN</th>
<th>States/UTs</th>
<th>Financial Year 2017 (Million Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Uttar Pradesh</td>
<td>101</td>
</tr>
<tr>
<td>2</td>
<td>Haryana</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>Chandigarh</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Punjab</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>Uttarakhand</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Himachal Pradesh</td>
<td>3.5* (2016)</td>
</tr>
<tr>
<td>7</td>
<td>Delhi</td>
<td>NA</td>
</tr>
<tr>
<td>8</td>
<td>Jammu &amp; Kashmir</td>
<td>NA</td>
</tr>
<tr>
<td>9</td>
<td>Ladakh</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>166.5</strong></td>
</tr>
</tbody>
</table>

*Based on consumption of cement. Sand being used 2.5 times. Growing at 6 to 7 percent annually.*
Impacts

Environmental
Flow disruption, Groundwater depletion, Change in flood pattern, Riverbank erosion, River morphology changes, water pollution & scarcity, adverse impacts on Aquatic flora, fauna, avifauna, noise pollution, dust pollution

Socio-Economical
Adversely affects Riverbed/ bank farming, fishing, boating community, rural roads, River based rituals, common community lands, River becomes a safety hazard for every user of river, river side structures becomes unsafe, Even Roads become hazardous due to continuous traffic of heavily loaded trucks.

Infrastructural
Damages to river banks, bridges, power poles, water supply structures, embankments, barrages, hydro projects, roads
In Ropar, illegal mining takes toll on groundwater

ROPAR: While the Centre has initiated the “Jal Shakti Abhiyan” for water conservation across the country on July 1, the illegal mining has already played havoc with the water table in the district, with the riverbed being dug up to more than 40 feet.

Unnao: Journalist Who Reported on ‘Sand Mafia’ Killed

Days before his killing, Subhash Mani Tripathi had informed authorities that he had been threatened by persons involved in illegal sand mining and land encroachment activities.
KEY INSTITUTIONS INVOLVED IN SAND GOVERNANCE

States/UTs

- Mines & Geology Department
- Revenue Department: District Administration
- State Pollution Control Boards
- Police Department
- Road Transport Department
- Forest Department: Mining in Forests
- Urban Development Boards, Water Resources, Irrigation Depts, PWD, Highways & Road departments: Consumer of sand

Centre

- Ministry of Environment, Forests & Climate Change
- Expert Appraisal Committee on Non Coal Mining
- Central Pollution Control Board
- Ministry of Mines
- National Mission for Clean Ganga-MoWR
- Ministry of Urban Development, CPWD, NHAI, others: Consumer of sand
Illegal, Unsustainable sand mining

- Non-adherence to rules, Non-compliance to processes
- Non-Formation of DEIAA, SEIAA, DSRs, DMF, Replenishment study
- Excavation of more than permitted minerals
- Mining in additional/beyond approved areas
- Overloading of trucks/tractors
- In-stream mining, Creation of cross sectional bunds
- Mechanised mining
- Blocking, diversion of active river channel
- Mining beyond permissible depth, time limit
- Building roads, bridges in riverbed without permission
Mechanized illegal mining in Yamuna, Yamuna Nagar, (Oct. 2020)
Some key Governance aspects

**Minor Mineral** Under section 23C of the Mines and Minerals Development and Regulation (MMDR) Act, 1957 the state governments can make rules for allotting mines, regulating and controlling illegal mining.

**DMF** The Mines and Minerals (Development & Regulation) Amendment Act, 2015, mandated the setting up of District Mineral Foundations (DMFs) in all districts in the country affected by mining related operations.

**PMKKKY** The Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) is a scheme by Ministry of Mines, GoI for the welfare of people & affected areas by using the funds accrued under DMF. [https://mitra.ibm.gov.in/pmkkky/Pages/About.aspx](https://mitra.ibm.gov.in/pmkkky/Pages/About.aspx)
<table>
<thead>
<tr>
<th>SN</th>
<th>State</th>
<th>Total districts</th>
<th>No. of districts with DMFs</th>
<th>Date of notifying DMF</th>
<th>Total amount collected Minor Minerals (In cr)</th>
<th>Total amount collected Major Minerals (other than coal) (In cr)</th>
<th>Total amount collected excluding coal (In Cr)</th>
<th>Projects sanctioned</th>
<th>Amount allocated</th>
<th>Amount spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jammu &amp; Kashmir</td>
<td>20</td>
<td>20</td>
<td>11.01.2017</td>
<td>11.33</td>
<td>0.114</td>
<td>0.0118</td>
<td>140</td>
<td>11.40</td>
<td>7.75</td>
</tr>
<tr>
<td>2</td>
<td>Himachal Pradesh</td>
<td>12</td>
<td>12</td>
<td>22.08.2017</td>
<td>43.88</td>
<td>114.54</td>
<td>158.42</td>
<td>73</td>
<td>15.15</td>
<td>0.0016</td>
</tr>
<tr>
<td>3</td>
<td>Uttarakhand</td>
<td>13</td>
<td>13</td>
<td>17.11.2017</td>
<td>102.94</td>
<td>0.25</td>
<td>103.19</td>
<td>565</td>
<td>26.24</td>
<td>0.70</td>
</tr>
<tr>
<td>4</td>
<td>Uttar Pradesh</td>
<td>75</td>
<td>75</td>
<td>15.05.2017</td>
<td>323.17</td>
<td>29.94</td>
<td>353.11</td>
<td>2547</td>
<td>498.04</td>
<td>299.11</td>
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<tr>
<td>5</td>
<td>Punjab</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>6</td>
<td>Haryana</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>120</td>
<td>120</td>
<td></td>
<td>481.32</td>
<td>164.74</td>
<td>646.06</td>
<td>3325</td>
<td>550.83</td>
<td>307.56</td>
</tr>
</tbody>
</table>

Only UP state collected 404.53 cr DMF for coal mining
## EC proposal of Sand mining on the basis of individual mine lease

<table>
<thead>
<tr>
<th>Area of lease (ha)</th>
<th>Category</th>
<th>Requirement EIA/EMP</th>
<th>Requirement of Public Hearing</th>
<th>Requirement of EC</th>
<th>Who can prepare EIA/EMP</th>
<th>Authority to appraise/grant EC</th>
<th>Authority to monitor EC compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>B2</td>
<td>Form IM, PFR and Approved Mine Plan</td>
<td>No</td>
<td>Yes</td>
<td>Project Proponent</td>
<td>DEAC/DEIAA</td>
<td>DEIAA SEIAA SPCB CPCB MoEFCC Agency nominated by MoEFCC</td>
</tr>
<tr>
<td>5-25</td>
<td>B2</td>
<td>Form IM, PFR and Approved Mine Plan EMP</td>
<td>No</td>
<td>Yes</td>
<td>Project Proponent</td>
<td>SEAC/SEIAA</td>
<td></td>
</tr>
<tr>
<td>25-50</td>
<td>B1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Project Proponent</td>
<td>SEAC/SEIAA</td>
<td></td>
</tr>
<tr>
<td>&gt;50</td>
<td>A</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Project Proponent</td>
<td>SEAC/SEIAA</td>
<td></td>
</tr>
</tbody>
</table>
## EC Proposal of Sand mining in cluster situation

<table>
<thead>
<tr>
<th>Area of lease (ha)</th>
<th>Category</th>
<th>Requirement EIA/EMP</th>
<th>Requirement of Public Hearing</th>
<th>Requirement of EC</th>
<th>Who can prepare EIA/EMP</th>
<th>Authority to appraise/grant EC</th>
<th>Authority to monitor EC compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 5</td>
<td>B2</td>
<td>Form IM, PFR and Approved Mine Plan</td>
<td>No</td>
<td>Yes</td>
<td>Project Proponent</td>
<td>DEAC/DEIAA</td>
<td>DEIAA SEIAA SPCB CPCB MoEFCC Agency nominated by MoEFCC</td>
</tr>
<tr>
<td>5-25</td>
<td>B2</td>
<td>Form IM, PFR and Approved Mine Plan EMP and one EMP for all leases in the Cluster</td>
<td>No</td>
<td>Yes</td>
<td>State, State Agency, Group of Project Proponents, Project Proponent</td>
<td>DEAC/DEIAA</td>
<td>DEAC/DEIAA</td>
</tr>
<tr>
<td>25-50</td>
<td>B1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Do</td>
<td>SEAC/SEIAA</td>
<td></td>
</tr>
<tr>
<td>&gt;50</td>
<td>A</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Do</td>
<td>EAC/MoEFCC</td>
<td></td>
</tr>
</tbody>
</table>
Issues in Governance

Inadequate Monitoring: CCTVs, GPS Bar Code, RFIDs, Drones, Computerized inventory

Non-transparency: in Selection, Allocation, Monitoring, Compliance of norms

Websites lack information: Numbers of mines, Minerals extracted, Revenue earned, ATRs etc.

No Information: DMF formation, Collection & Utilization of fund

Lack of HR, co-ordination, rules PCBs, Mining departments short-staffed, Infighting

No real EMP: No clear rules to address adverse impact on rivers, environment

Unsustainable Mining: Deep, In-stream, Highly Mechanized, Creation of cross-sectional bunds, during nights

No adherence to orders/guidelines: No credible replenishment study, DSR, DEIAA, SEIAA

Corruption: Politician-officials-mafia nexus

Period of mining leases/ No initiative to reduce demand/use of alternatives
Jammu & Kashmir

KL Artwork by Yasir Malik, Sand Storm, Feb. 2020
https://kashmirlife.net/sand-storm-issue-45-vol-11-223571/
Was on my way to Kartarpur when I saw some JCB machines evidently engaged in illegal mining on the Sutlej banks in Phillaur (Jalandhar) & Rahon (Nawanshahr). Immediately ordered probe and asked the concerned DCs and SSPs to seize the equipment. Responsibility will be fixed.
This site can't be reached

**minesharyana.gov.in** took too long to respond.

Try:
- Checking the connection
- Checking the proxy and the firewall
- Running Windows Network Diagnostics

ERR_CONNECTION_TIMED_OUT
Can’t happen without the consent of cops: Haryana minister on mining mafia

Haryana Mining Minister Mool Chand Sharma has sought Home Minister M. Venkaiah Naidu's intervention in facilitating illegal sand mining (Feb. 2020)
Punjab: Illegal, excessive mining led to damage of Dhusi bunds thus causing flood destruction in 6 districts. (Aug. 2019)
Some Recent Key Legal Interventions: Punjab

24 July 2019: Supreme Court issued notices to the Centre, CBI and five states including Punjab on a plea claiming rampant illegal mining without the requisite environment clearance in the states leading to environmental degradation.

11 September 2020: While hearing a petition on large scale illegal mining in villages and on Sutlej river bed, Punjab & Haryana High Court has prohibited mining activities 1 km from the National Highways, big bridges and half km from State Highways, small bridges in Punjab. The HC bench ordered that the state machinery should also use drones to check the illegal mining and also carry out river audit including replenishment study within six months. The case was scheduled for hearing on Sept 30.

In another case the High Court on October 13, 2020 directed the state government to file a status report on preventive steps undertaken to stop illegal mining. The case will now come up for further hearing on Nov 3.

10 July 2020: The National Green Tribunal has asked the Punjab State Pollution Control Board to recover Rs 315 crore from the contractors found guilty in illegal sand mining at three sites Swarha, Baihara and Harsa Bela in Ropar district. The plea was filed in 2016 and was being heard regularly. Mining at these sites was carried out in excess causing change in river course and also leading to floods in the district in August 2019.
Some Recent Key Legal Interventions: Uttar Pradesh

**Uttar Pradesh 29 June 2020:** NGT directed a committee formed by it to submit a factual report on a plea alleging sand mining in contravention to rules within 1 km from Kalesar National Park and Elephant Reserve upstream of Hathnikund Barrage in Saharanpur district during the lockdown period. It has also asked a committee comprising Saharanpur District Magistrate, and a member from SEIAA, to submit report in the matter before July 15, 2020.

The plea has said that District Survey Report for riverbed sand mining in District Saharanpur has been finalised without conducting replenishment study as required under the Sand Mining Management Guidelines, 2020.

**CBI Probe On:** The Central Bureau of Investigation (CBI) probe into illegal sand mining in various districts (between 2012 and 2016) following direction of the Allahabad High Court on July 28, 2016 is going on. The Supreme Court on August 8, 2016, also asked the CBI to probe the companies mentioned in a report furnished by the Enforcement Directorate. It is alleged that some of companies were using the sand mining as a front to launder black money.

The case pertains to the alleged irregularities in grant of mining leases in violation of mandatory e-tendering policy introduced by the state government on May 31, 2012, which was upheld by the Allahabad High Court on January 29, 2013.
Some Recent Key Legal Interventions: Haryana, Uttarakhand

**Haryana** 13 July 2020: Hearing a plea of farmers against illegal sand mining in their fields along Yamuna river in Panipat, the Panjab and Haryana HC restrained five contractors from carrying out mining in the land denoted in the demarcation report. Earlier on 9 June 2020, the court has directed to conduct demarcation of the area along the Uttar Pradesh border. But the petitioner complained that mining has not stopped. As per latest report, it has again resumed.

15 July 2020: On a petition of rampant and large-scale sand mining on Yamuna banks, the NGT issued directions to the Haryana government and formed a joint committee under the Central Pollution Control Board (CPCB) and furnish a factual and action-taken report within three months. The case is scheduled for hearing on January 6, 2021.

**Uttarakhand** 23 March 2020: The Uttarakhand HC put a stay on the use of heavy machines for mining in the Saryu in Bageshwar district. The petitioner had stated that mechanized mining would not only affect the local economy but also lead to environmental degradation of Sarayu river which is considered holy & minerals are always mined manually there.

The HC had given three weeks to the state government to respond and ruled that the case would be heard next when the government files its affidavit. There are also hearing going on regarding illegal, mechanized mining in various rivers in the state.
Some State specific issues

**J&K**: Rivers being opened to mechanized mining by outsiders

**Himachal Pradesh**: Crushers industry influential, mining in wild rivers

**Uttarakhand**: Govt diluting norms, controversial River training policy, 70% sand exported

**Punjab**: Politicians involvement, Gunda tax, Channelization Project, Use of barges, suction pumps, 65% sand used by Govt

**Haryana**: Excessive mechanized mining in Yamuna, No land for rivers

**Uttar Pradesh**: Morang costing rivers dearly, CBI probe languishing, Gangster controlling mining, Dredging looming threat
J&K: Mechanized mining in Arin stream

Riverbed mining in Arin stream (Athar Parvaiz, Aug. 2020)
Himachal: Stone crusher unit in Sutlej riverbed. (March 2020, Punjab Kesri)
Uttarakhand: Stone crusher unit in Ramganga riverbed
Uttarakhand: Illegal bridge in Yamuna riverbed, Vikas Nagar (May 2020)
Punjab: Mechanized, instream mining in Sutlej river (Tribune, Nov 2017)
Mechanized instream mining in Yamuna, Kairana UP. (May 2020)
UP: Mechanized, instream mining in Baghen river, Banda (Oct. 2020)
Distressing Endangered Gharials, Illegal Sand Mining Continues In Chambal Sanctuary

Debarghya Sil
26 March 2019

Editor: Debarghya Sil
Violence

Journalists attacked in Jalalabad in Punjab on July 30, 2018 while reporting on the illegal sand mining.

Himachal forest official attacked by sand mafia in Poanta, May 19, 2020

Parents of kids who died in deep mine pit in Yamuna Nagar, Haryana July 08, 2019

Shubham Tripathi shot dead in Unnao, UP on June 19, 2020
Threats and attacks on farmers, villagers, reporters, police, forest staffs are routine affairs.
Role of Media

- J&K: Media facing restrictions
- All States: Reporting frequently, Less English reporting
- Basic information missing
- Lack of detailed, in-depth reporting
- Follow up is poor
- Less reporting from states which are also ruled by party at Centre
Protecting rivers and involving communities to conserve Himalayas’ shy otters

by Sahana Ghosh on 31 July 2020

India has three otter species and they are becoming increasingly rare outside protected areas (PA), especially in the Himalayan region.

Human-caused disturbance such as the construction of hydropower projects, sand mining and boulder collection harm the riverine habitats of otters that extend beyond PAs.

According to wildlife biologists, connectivity between aquatic habitats outside PAs and involving communities in conservation are urgently needed.
CIVIL SOCIETY, OTHER EFFORTS

- Jal Satyagarh at Khaptiya, Banda, UP

- Noteworthy work of Brij Mohan Yadav, Vikrant Tongad, Umesh Tyagi, Manoj Thakur, JP Badoni, Mustqeem Mallah

- Matri Sadan is successful in stopping sand mining around Haridwar to large extent

- Left parties protesting in Himachal, Punjab

- Durga Shakti Nagpal making some dent as SDM in UP

- No mass or sustained campaign

- No sustained focussed advocacy

- Individual, activists, reporters, villagers raising issues frequently
Matri Sadan Haridwar striving hard to protect Ganga from dams, riverbed mining

Women on Jal Satyagarh in Khaptia, Banda against mining in their farmlands along Ken river. 6 June 2020, Jigyasa Misra, PARI

HP: Kangar residents, Una stop the JCB machines from mining. (Tribune, June 2019)
Some key questions, conclusions, recommendations-1

- **J&K**: The local miners, sand diggers have been mostly doing manual mining. However, now the valley is being opened for outside miners for mechanized mining. What could be the implications for local people & rivers? Is this advisable? Have local people been consulted?

- **Punjab**: Over 65% of sand is being used in govt projects. Can there be rating for buildings, infrastructure on the basis of quantum & source of the construction material being used?

- **Uttarakhand**: 70% RBM are transported outside the state. The riverine communities, river dependent people are worst affected by the mining. But they have no real say in decision making. What steps govs should take to make the processes democratic and participatory?

- **Haryana**: The govt earns huge revenue yet mining dept, PCBs face resource crisis. Mining approvals are given for several years, when rivers change course after every major flood.

- **Uttar Pradesh**: The court orders, guidelines by MoEFCC are not respected. CBI probe is languishing for four years.
Some key questions, conclusions, recommendations-2

- **All the states/ UTs** The transparent, fair auctioning processes, EIAs, Monitoring & compliance to rules and monitoring are major problems.
- What are feasible, viable, sustainable alternatives to reduce dependence on river sand?
- Will creation of fish sanctuaries, No Mining Zones address the challenges? How the otters, gharial, dolphins, turtles can be saved from illegal mining activities?
- Should sand be considered MINOR mineral? Can we change that? Will that help?
- Why is judiciary not being effective in changing this murky sand mining scenario?
- Why is media not highlighting these issues as much as necessary, particularly state and national media. Why is even civil society largely silent?
- We need much more academic and scientific research into this issue, that addresses the issues of sand mining in real time.
- We also need more research and interaction with the sand miner and sand user real estate industry.
- Plz see:- [North India Sand Mining Overview](#)
THANK YOU

For regular updates on water issues: **Weekly Dams, Rivers and People News Bulletin**

https://sandrp.in/, https://facebook.com/sandrp.in/
https://twitter.com/Indian_Rivers, ht.sandrp@gmail.com

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**INDIA RIVERS WEEK 2020**