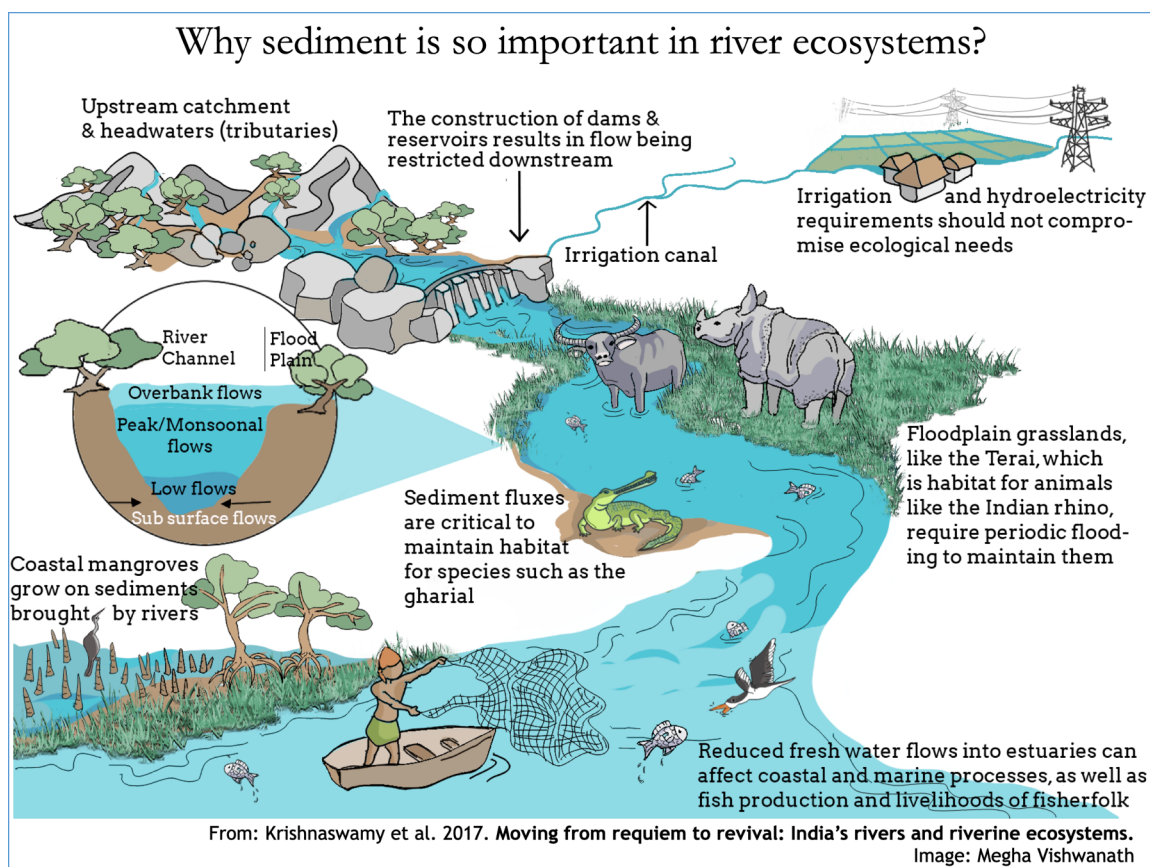


India Rivers Week 2020

North India Sand Mining Overview



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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



Shubham Tripathi shot dead in Unnao, UP on June 19, 2020



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

31 people including 15 kids, a reporter killed in North India in past 2 years due to sand mining

Haryana: 17 deaths in past two years including 11 kids, 4 adults drowned to death in deep sand mine pits, 1 villager in accident, 1 in attack

Uttar Pradesh: 8 deaths of which 6 kids died in deep sand mine pits in Yamuna in Sept. 2019, 1 reporter murdered, 1 encounter of gangster

Uttarakhand: 2 Kids die by drowning in deep sand mine pit in Khoh river, Kotdwar in July 2020

Punjab: 2 kids die in sand mine pits near Megha Mahatam village area under Guruharsahai subdivision, Ferozepur in July 2020. Two youths when their tipper fell into a 50-ft-deep pit in the Swan river near Bhalan village in Dec. 2019

Threats and attacks on farmers, villagers, reporters, police, forest staffs are routine affairs

Executive Summary

Sand is a key ingredient in all kinds of building constructions, glass and electronic industry, among others. These constitute a huge part of national economy. Sand mining in rivers or mining of River Bed Material (RBM) (including sand, gravel, boulders etc) has huge impact on Rivers in multiple ways: physical, ecological and dependent livelihoods among others. Sand is by definition, a key ingredient of the Rivers. It provides habitat for wide range of biodiversity in the river.

However, there is not sufficient appreciation, locally, at state level, nationally and internationally of the role of sand as key ingredient of the rivers in law, governance, institutions, economy, judicial system, media, decision making processes or for that matter even in the society. Scientific work on how important sand is for the rivers is far from adequate.

Sand is the second biggest extracted natural resource after water. So how much sand does India use? According to WWF 2018 report, India may be using about 1.5 billion tonnes sand per annum in 2010, up from about 0.8 billion tonnes ten years earlier. By that growth rate, we would be using around 2.5 billion tonnes in 2020.

Several people including journalists, police personnel, administrators, labourers, local residents, activists etc have been killed by sand mafia in recent years or died in accidents and disasters related to illegal sand mining. Judiciary has been trying to curb the menace of illegal sand mining. Government has been coming out with guidelines, but has clearly lacked sincerity in achieving credible governance. The Governments have shown great faith in technology to curb the menace of illegal sand mining, but without transparent, participatory and accountable governance, it won't help.

Some alternatives to use of river sand include M-Sand: Manufactured sand and also recycling construction waste, in addition to sustainable use of river sand. Use of sand from sediment accumulated in reservoirs behind dams has also been suggested. But none of them have been taken up with sufficient sincerity or has been able to reduce the pressure on Rivers.

Sand is technically considered a "Minor" mineral, but this has possibly led to its importance getting under estimated. A number of departments of the government are involved in governance of river sand mining, including environment department, geology & mines department, revenue department and of course law enforcement department. The local communities need to have a role in sand mining governance, but the governments have not shown any interest.

North Zone North Zone includes the states/ Union Territories of Jammu & Kashmir, Ladakh (both included under J&K here since till recently they were part of same state and most reports include them under one state), Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Delhi and Chandigarh. Delhi and Chandigarh are essentially big sand consumers.

Jammu & Kashmir The Jhelum, Tawi, Ravi, Chenab, Arin and Papchan are some of the mining affected rivers in J&K. Very large number of people depend on rivers for their livelihoods in J&K, including miners, boatmen, diggers, loaders and vehicles owners. After abrogation of Article 370 in Aug 2019, the situation of local miners has gone much worse. Online auctions have opened the door to big outsider miners and mechanised mining that will have much bigger impact on the rivers. The website of Dept of Mining & Geology has not been updated. There is no information about district level studies, replenishment study, and number of mining leases, revenue earned, fines imposed, cases filed, formation of district mineral foundation (DMF) and collection and utilization of fund. As per rules, mining operation also need

clearances from Fisheries department, however it is not being consulted. The department has also expressed its apprehension.

Himachal Pradesh All the districts are affected by illegal mining, but the Mandi district is the most affected while least cases are reported from Solan. All the big rivers like Sutlej, Tons, Beas and perennial tributaries like Pabbar, Neugal, Binwa, Sainj, Kansa, Suketi are affected. Extraction of riverbed minerals has increased significantly recently. As per 2016 figures HP was procuring about 35 lakh tonnes of sand, gravel & boulders. The proliferation of infrastructure projects including real estate, buildings, hydro-power projects has been key reason behind increased pressure on rivers to supply the growing minor minerals demand. The status of DMF formation and collection and utilization of funds like in the case of J&K. There has been no information on carrying capacity and replenishment study. The latest information about the amount of riverbed minerals being extracted, number of illegal mining cases being registered and convictions in courts are not put in public domain. There are reports of CCTV camera not functioning, being damaged and stolen, signifying failure of technological efforts without addressing governance. There are reports of extortion and *gunda* tax in connivance of government departments and in most of raid cases the illegal miners are being alerted in advance. The miners-politicians-governance lobby is strong. The orders of National Green Tribunal (NGT) and High Court are not being implemented effectively. Riverbed minerals are being supplied to neighbouring Punjab through legal and illegal ways. The Kangra, Una and Sirmaur districts share borders with neighbouring states of Punjab and Uttarakhand where the Beas, Chaki, Swan, Giri, Bata and Yamuna rivers are facing mining from both states. State Fisheries minister accepted in assembly that fisheries are getting affected.

Uttarakhand The Gola, Nandaur, Ganga, Kosi, Dabka, Yamuna, Khoh, Asan, Alaknanda, Pindar, Saryu, Sharda rivers are already subjected to unsustainable, illegal mining. There is attempt to allow more mining spots and deeper mining in these rivers. Influence of mining lobby in government decisions is apparent. Early in 2019, it has first allowed mining within 100 metres distance of either side of bridges which was previously restricted upto 1 km by Nainital High Court. The government then has doubled the depth limit for minerals excavation from 1.5 m to 3 m. The state government has formed controversial river training policy on the pretext of flood management. It allows deepening of river. In 2001-02 the state government earned Rs.16.09 Cr revenue from RBMs which increased to Rs.112.39 Cr by 2011-12 the latest year for which such information is available. Around 70 percent of RBMs mined are supplied out of the state. About 1 lakh workforce engaged in mining activities and most of them are migrants from Uttar Pradesh, Bihar and Nepal. They are not given benefits of DMF fund meant for their welfare. During Lockdown, mining was resumed in their name, but then mechanised mining was used as the mining labour had gone back to their villages. The crusher industries is causing more destruction of the rivers including pristine wild rivers in forested areas. 13 mining leases on 8 river stretches in forests on 5300 ha land are functioning. Some additional such mining has been stopped following judicial intervention or people's protests. Matri Sadan has been at the forefront in fighting against such mining around Haridwar. The officials of forest dept, mining dept, SPCB largely remain silent on clear violations. There is no information regarding district survey reports and replenishment study.

Punjab As per a govt sub committee report, sand demand in the state is 40 Million tons, legal production currently is 4 million tons. The gap is being fulfilled by illegal mining. Over past many years, illegal sand mining related incidents are increasing. Sutlej, Beas, Swan and Ghaggar rivers have been facing large scale illegal and mechanized mining. There are reports of groundwater depletion, pollution, additional flooding, threats to embankments and even river changing course. The Bhakra Beas Management Board had time and again written to the

authorities and pointed out that sand mining was a serious issue. Illegal mining is also reported as threatening the Power Transmission Towers and the Agampur bridge on Sutlej River near Anandpur Sahib.

A huge sand mining scam was exposed in 2015-16. It became an election issue for 2017 state assembly. The situation has virtually remained unchanged. In Jan 2018, Rana Gurajeet Singh, the state irrigation minister had to resign for irregularities in auctioning of sand mines. In March 2018, the CM himself tweeted aerial images of large scale machined mining in Sutlej river in Phillaur and Rahon. In Oct 2018, the High Court stayed allotment of new mining leases as the auctioning was being done without any replenishment study and without even identification of the river stretches in violation of the apex court 2012 judgment. Punjab is among five states whom the SC has served notices in July 2019 seeking prosecution of persons involved in illegal sand mining. The cases are ongoing.

Haryana Over past two years the Haryana government has allowed mining in all the districts adjoining the Yamuna river on the pretext of flood protection work. The embankment near Tajewala has been damaged and the Hathni Kund Barrage in Yamuna Nagar has been threatened by large scale illegal mining activities. The illegal mining has been taking place on almost double the area than allotted. The mining companies have been found creating bunds, passages on and along riverbed all through the year. In Sept 2018, the western Yamuna canal had breached in Shekhpura area of Karnal causing damages to agricultural lands, for which the villagers had blamed sand mining as main reason. In April 2019, the illegal mining damaged a large section of the RLDSE (Right Lower Down Stream Embankment) along the Yamuna at Tajewala village.

Most of the districts have not prepared district survey reports and managed to secure clearances on the basis of falsely prepared reports. Inspection teams by Punjab and Haryana, Delhi HC and NGT have found river flows obstructed and diverted by miners causing change in natural flow path of the river. Apart from Yamuna districts, illegal mining activities are going on in Panchkula, Ambala and Mewat districts. Officially, mining has been allowed in 1300 ha of Yamuna riverbed land in Yamuna Nagar district alone, while actual mining is in much larger area. The government has also allotted 125 units of stone crushers in the district, all of this mostly since 2015, for 7-10 years. Sand is exported to Rajasthan, Punjab, Uttar Pradesh and Delhi. The riverbed has been massively dug up in all Haryana districts including Yamuna Nagar, Karnal, Panipat, Sonapat. The CAG report for 2012-13 to 2016-17 period tabled in state assembly in Nov 2019 auditing the state mining dept admitted that there were indications of change in river flow regime and ground water recharge due to excessive mining. As per the report, the mining department was understaffed: against 206 sanctioned post only 125 were filled. It also revealed that mining department had not prepared district survey report as mandated. The CAG report further stated that the state suffered direct revenue losses of Rs 1476.21 Cr and overall economic losses to the tune of around Rs 5000 Cr on account of mining done in double the area in 95 mines than the allotted area. There is no information in public domain to show that the Haryana District Mineral Foundation (DMF) Trust Rules, 2016 were being implemented.

Uttar Pradesh Ganga, Yamuna, Hindon, Chambal, Ken, Baghen, Betwa, Sone and several other rivers have been facing illegal riverbed mining for over a decade. Riverbed mining has been reported from Saharanpur, Muzaffar Nagar, Shamli, Baghpat and Greater Noida districts along Yamuna river. The river sand of Bundelkhand, dull orange colour, is known as Morang. The grain of this sand are bigger and coarser and in high demand. It is found in the Chambal, Ken, Betwa, Sone rivers systems & is mined extensively.

About 14 persons including 9 kids have died along the upper stretch of Yamuna in Uttar Pradesh by drowning in deep mine pits in the last two years. In June 2019, the Dalit villagers of Khaptiya in Banda district had to undertake Jal Satyagrah against riverbed mining activities destroying their agricultural lands. Sand miners in Bundelkhand are feared for creating bunds, roads & bridges in the riverbed. It creates water crisis, and affects farmlands.

In 2013, the brave efforts by Durga Shakti Nagpal, in her first job as SDM in Greater Noida lead to exposure illegal mining and nexus, but she soon got transferred in July 2013. NGT then declared that all mining will require Environment clearance, which was in line with the 2012 SC order. The NGT in past few years has issued many orders. Towards the end of 2018, the Central Board of Investigation (CBI) had also started inquiry into illegal mining case in Betwa river in Hamirpur district which involved the then Mining Minister Gyatri Prajapati and the district magistrate among others. The inquiry is yet to reach any conclusion.

Issues in Governance

Non-transparency

- Selection, Allocation, Monitoring, Compliance of norms

Websites lack information:

-Numbers of mines, Minerals extracted, Revenue earned, ATRs etc.

Inadequate Monitoring:

-CCTVs, GPS Bar Code, RFIDs, Drones, Computerized inventory

No Information:

DMF formation, Collection & Utilization of fund

Lack of HR, co-ordination, rules

PCBs, Mining departments short-staffed, Infighting

No clear rules to address adverse impact on rivers, environment

Unsustainable:

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

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, Hindon, Chambal, Betwa, Ken, Sone

Introduction

Sand mining in rivers or mining of River Bed Material (RBM) (including sand, gravel, boulders etc) has huge impact on Rivers in multiple ways: physical, ecological and dependent livelihoods among others. Sand is by definition, a key ingredient of the Rivers. It provides habitat for wide range of biodiversity in the river. It provides both sub surface storage space and a mechanism to recharge the groundwater. The sand, along with silt, clay, pebbles and boulders are an integral part of a river system and act as key existential medium in floodplains and deltas. To ensure that sustaining river connectivities is very important. There are structural issues involved with sand in the river, including river bed & river banks stability and even the safety of manmade structures like bridges, flyovers, aqueducts and river bank constructions.

Sand in River Ecosystem: A 2018 WWF paper on “Impacts of Sand Mining on Ecosystem Structure, Process and Biodiversity in Rivers”ⁱⁱ says: “Sand which is part of the overall sediment load that rivers carry from the head-waters in the mountains to the estuaries, deltas and near coastal marine ecosystems plays an important role in providing habitat for many aquatic organisms in the river ecosystem and in the flood-plain. These include mid-river islands and sand-bars. The reduction in sediment load especially sand due to upstream trapping in reservoirs increases the vulnerability of downstream regulated rivers and their channels to erosion and it also reduces the ability of the river to maintain braided channels that are so important for many organisms at different stages of their life-history. Sand mining on already sediment depleted rivers further degrades the river ecosystem.

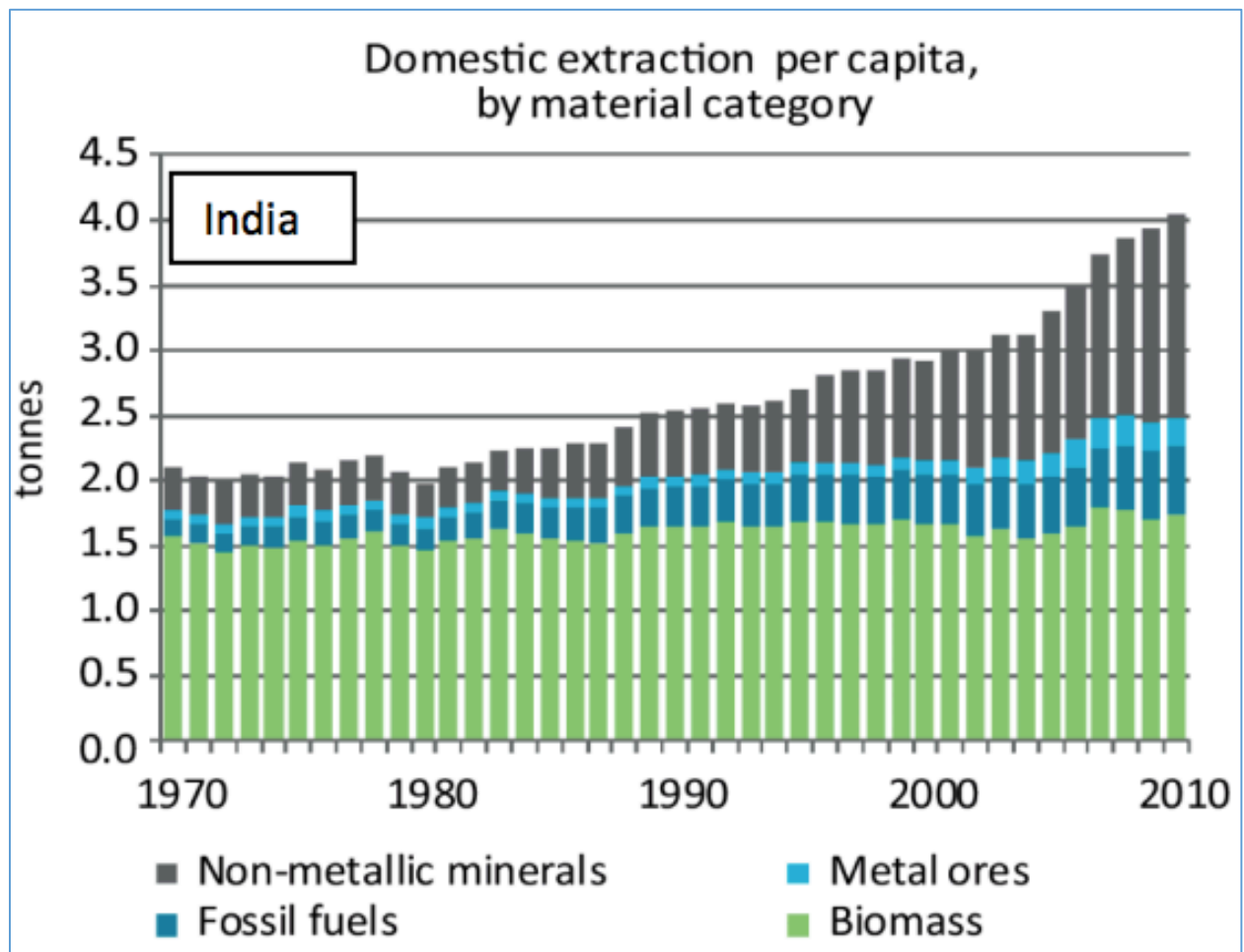
“Many studies have highlighted ecological impacts of sand mining which includes the direct disturbance and removal of habitats in rivers, deltas and coastal areas, loss or changes to the vegetation structure of riparian zones, and increased or decreased downstream sedimentation affecting habitat quality. Sand mining interferes with a number of ecological processes, such as macro-invertebrate drift, fish movements, abundance and community structures, and food web dynamics. A Quick Scoping Review quoted in a 2018 WWF report often inferred impacts on populations, such as loss of native species and increases in invasive alien species, but few had long-term data sets to confirm this. The lack of scientific and systematic studies of sand mining in rapidly developing countries prevents accurate quantification of the volumes of material being mined, or the type, extent and magnitude of impacts.”

1988 Campaign against sand mining in Maharashtra To illustrate how sand in river helps improve water security, read what K J Joy and Nagmani Raoⁱⁱ wrote in their 1988 EPW article about Yerala River in Sangli-Satara districts of Maharashtra: “The sand deposits are considered to be a special feature of Yerala. People make a comparison between the Yerala river and its tributary, the Nandani. The difference between the two is that unlike Yerala, river Nandani has no sand deposits—only exposed impermeable rocks. Even with one flood in the Yerala the sand holds water for at least four months; but in the case of Nandani river one does not get water to even wet one's toes! This is the difference the presence of sand makes.”

Does Sand Mining Governance appreciate that it is killing rivers: However, there is not sufficient appreciation, locally, at state level, nationally and internationally of the role of sand as key ingredient of the rivers in law, governance, institutions, economy, judicial system, media, decision making processes or for that matter even in the society. Scientific work on how important sand is for the rivers is far from adequate.

Sand miners have been found to be constructing additional roads and bridges in the river bed, for access to the river bed and transportation of the mined material. These are major interventions, completely illegal, that cannot be just over night operations or can be hidden. And yet, in most cases, the enforcement and governance agencies claim ignorance when

questioned about their inaction even for such illegal major river bed interventions.



Sand is the second biggest extracted natural resource after water. There is possibly a case for limited extraction of sand from the rivers. But to ensure that such extraction remains within sustainable limits, and does not impact the key services and existence of the river, this has to be done only manually. There is clearly no case for use of heavy machinery for extraction of sand from rivers. This will be an important question to debate in the proposed dialogues.

How much sand does India consume?

Sand Consumption in North Zone in FY 2017

SN	States/UTs	Financial Year 2017 (Million Tonnes)
1	Uttar Pradesh	101
2	Haryana	21
3	Chandigarh	18
4	Punjab	16
5	Uttarakhand	7
6	Himachal Pradesh	3.5* (2016)
7	Delhi	NA
8	Jammu & Kashmir	NA
9	Ladakh	NA
	Total	166.5

<https://mines.gov.in/writereaddata/Content/sandminingframework260318.pdf>
Based on consumption of cement. Sand being used 2.5 times. Growing at 6 to 7 percent annually.

So how much sand does India use? According to WWF report (see figure above), India may be using about 1.5 tonnes sand per capita per annum in 2010, up from about 0.8 tonnes ten years earlier. By that growth rate, we would be using around 2.5 tonnes per capita per annum in 2020. Estimated consumption in North Zone states is given above.

Emergence of Sand Mafia: Several people including journalists, police personnel, administrators, labourers, local residents, activists etc have been killed by sand mafia in recent years when former tried to stop illegal and unsustainable sand mining or died in accidents and disasters related to illegal sand mining. Judiciary has been trying to curb the menace of illegal sand mining, and have on occasions used bitter pills like imposing total prohibition on sand removals. Government has been coming out with guidelinesⁱⁱⁱ, mostly on push from judiciary^{iv}, but has clearly lacked sincerity in achieving credible governance. The Governments have shown great faith in technology to curb the menace of illegal sand mining, but seems to have conveniently forgotten that without transparent, participatory and accountable governance, no amount of technology, guidelines or institutions would help.

Who uses Sand: Sand is a key ingredient in all kinds of building constructions, glass and electronic industry, among others. These constitute a huge part of national economy. Urban areas are clearly the biggest demand centers. Sand is also a trans-boundary issue. There is also significant international trade in sand. For example, Dubai imports sand from Australia for many of its famous constructions. In India there have been attempts to import sand to bridge the demand supply gap at times. However, large part of the international sand trade is undocumented. A paper referred below by US scientists published in Nature in July 2019 noted: “..... between 2006 and 2016, less than 4% of the 80 million tonnes of sediment that Singapore reported having imported (Singapore is the World’s largest importer, mainly for land reclamation) from Cambodia was confirmed as exported by the latter”. The report also mentioned that Illegal sand mining is rife in around 70 countries. The report says:

International sand-trade databases are too crude to track sustainability. The global UN Comtrade database, for example, collates the export and import values of sand and gravel in one or two categories, based around the quality and composition of material. It does not distinguish between sand taken from rivers and deltas that are being replenished (active sources) and sand removed from passive sources that are not, such as geological deposits... in the Mekong delta, the Vietnamese government estimates that nearly 500,000 people will need to be moved away from river banks that are collapsing as a result of sand mining in the channel. In the Ganges River in northern India, eroded river banks have destroyed the nesting and breeding habitats of fish-eating gharial crocodiles (Gavialis gangeticus), a critically endangered species with only around 200 adults left in the wild in northern India and Nepal.

Alternatives to River Sand Mining: Some alternatives to use of river sand have been suggested. These include M-Sand: Manufactured sand and also recycling construction waste, in addition to sustainable use of river sand. Use of sand from sediment accumulated in reservoirs behind dams has also been suggested, though there are not many success stories in this regard so far. A significant part of the brick making happens at river beds or using riverbed material like clay. To the extent that such bricks can get replaced by fly ash bricks, fly ash can help substitute river bed material.

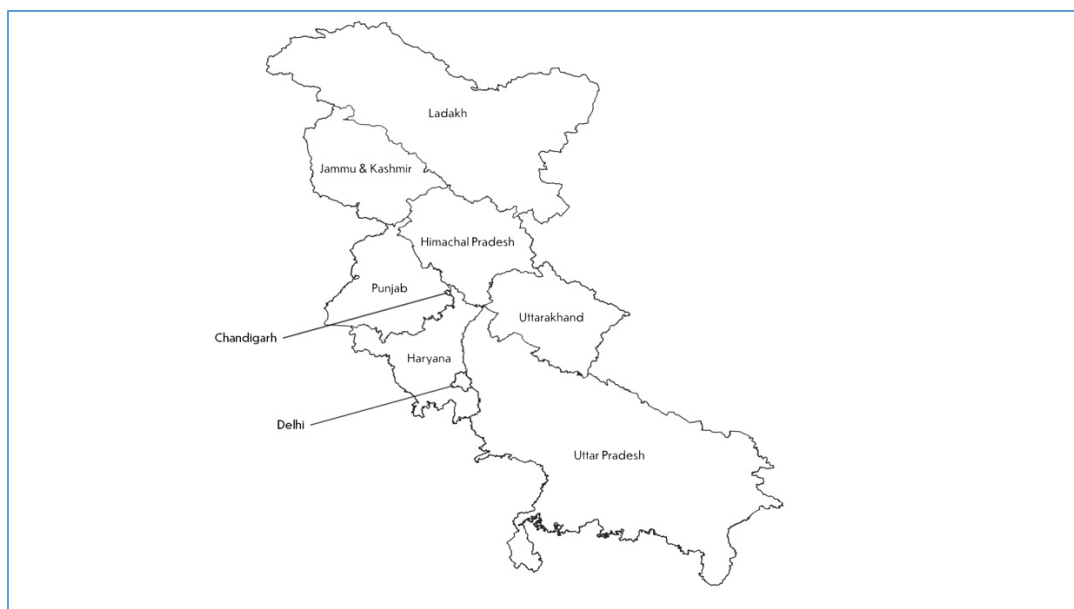
According to the Nature paper mentioned above, the alternatives include “industrial slag and waste (including copper, fly ash and foundry sand) and recycled plastic. For example, roads, car parks and driveways made from plastic waste embedded in asphalt can lessen demand for bitumen and aggregate.” However, there are reports suggesting fly ash is carcinogenic and might cause groundwater pollution. Plastic roads have also not proven long lasting and have

chemical contamination threats.

Is Sand a minor mineral? Sand is technically considered a “Minor” mineral, but this has possibly led to its importance getting under estimated. In terms of volumes extracted, sand extraction is at much bigger scale than any other mineral. So is there a case for reconsidering this nomenclature? One option is to classify it as non metallic mineral as the WWF report does.

A number of departments of the government are involved in governance of river sand mining, including environment department, geology & mines department, revenue department and of course law enforcement department. There has been demand for special police force by some^v to stop illegal sand mining. But who suffers the most when and immediately where there is unsustainable sand mining? It's the local communities. But the Gram Sabhas & Panchayats have no role in monitoring or governance of sand mining. Is there a case to have key role for them in sand mining monitoring and governance?

The Report This report has been put together to provide an overview of sand mining related issues of North India in the context of India Rivers Week 2020 theme “Is sand mining killing our Rivers” and North Zone Dialogue on Oct 31, 2020. This introductory section provides an overview of general issues related to river sand mining in India.



The report has section on each of the six North Indian states/ Union Territories of Jammu & Kashmir (including Ladakh here since till recently they were one state), Himachal Pradesh, Uttarakhand, Punjab, Haryana and Uttar Pradesh.

The remaining states/ UTs of Delhi & Chandigarh are essentially major consumers of sand. Each section highlights key issues of river sand mining in respective state/ UTs.

SANDRP blog list SANDRP has been compiling information about sand mining in various states and zones of India since last five years. These can provide some useful research material, so we are giving full list of it here.

SANDRP Sand Mining Blogs: 2015-2020

Year	Category/ Zones	Blog Title & Links
2015	General	River Sand Mining in India in 2015

	Govts actions	River Sand Mining in India in 2015 – II – Government acts of omissions and commissions
	Judicial Intervention	River Sand Mining in India in 2015–III–Judicial Actions
2016	General	River Sand Mining in India in 2016
	Govts actions	River Sand Mining in India in 2016-II- Governments Show no Will to Regulate
	Judicial Intervention	River Sand Mining in India in 2016–III – Judicial Interventions
2017	General	Illegal Sand Mining 2017: Rivers Continue To Lose Mindless Mining Battle
	Govts actions	Riverbed Mining 2017 -II- States Look To Centre, Centre Dilutes Norms
	Judicial Intervention	Sand Mining Review 2017- 3 – Judicial Interventions Fail To Restore Damage
2018	North	Punjab Sand Mining 2018 Overview: SAD SAGA OF STATE FAILURE Uttar Pradesh Sand Mining 2018: Key NGT orders slap for MoEF
	North East	North East India Sand Mining 2018: Emerging threat to Rivers
	East	East India Sand Mining 2018: Will NGT order help restore Subarnarekha River?
	West	Rajasthan: SC Banned Riverbed Mining through 2018: Centre & State Show No Concern Gujarat Sand Mining 2018: Can Technology alone help Stop Illegal Sand Mining?
	Central	Madhya Pradesh Sand Mining 2018: Unprecedented Violence by Sand Mafia Maharashtra Sand Mining 2018: Panegaon shows Way To stop Illegal Sand Mining
	South	Karnataka Sand Mining 2018: Hopeless, But Action Packed! Tamil Nadu Sand Mining 2018: Story of Nexus exposed by a brave Journalists Kerala Sand Mining 2018: How a 17 year Allapad girl became anti sand mining icon Sand Mining 2018: Telangana and Andhra Pradesh
	Violence	Illegal Sand Mining Violence 2018: at least 28 People died across India Sand Mining 2018: Is Illegal Sand Mining A National Menace?
2019-20	North	J&K Riverbed Mining 2020: Rivers exposed to mechanized mining Himachal Pradesh sand mining 2020: No Replenishment study, district foundation Uttarakhand Riverbed Mining 2020: Rivers, People, Revenue Robbed Punjab Sand Mining Overview 2019: Story of Political Patronage & Goonda Tax Haryana Riverbed Mining 2019: Yamuna Robbed of Minerals, Flows UP riverbed mining overview: NGT, CBI, Govts cannot stop the menace
	West	Rajasthan River Sand Mining Overview 2019: SC Ban Remains, Police-Mafia Gang Rules Gujarat Riverbed Mining Overview 2019: Six People Died Due To Illegal Sand Mining Goa Riverbed Mining Overview 2019: Civil Societies Form Network To Curb Mining Menace
	Central	Madhya Pradesh River Sand Mining 2019: Rivers mined Dry; Govt not bothered Maharashtra Riverbed Mining Overview 2019: Mining Posing Bigger Threats As Government Fails To Act
	South	Kerala 2020 Sand Mining: Don't forget floods, fisherfolks & vanishing villages Karnataka Sand Mining 2020: Active Collector, Destruction of fish sanctuary & calm collection Tamil Nadu Sand Mining 2020: Persistent Court can't shake indifferent govt Andhra Pradesh Riverbed Mining 2020: Quicksand of mismanagement Telangana Riverbed Mining 2020: Tribals, Godavari robbed
	East	Bihar Sand Mining 2020: Ruining rivers; aggravating floods

Other SANDRP Blogs on RIVER SAND MINING

Month Year	Category/Region	Link
July 2019	Bundelkhand	Sand Mafia Build Illegal Bunds In Ken River
July 2019	Haryana	3 Kids Drowned to Death in a DAY In Illegal Sand Mining Pits

Nov. 2019	Haryana	Rampant Unsustainable Riverbed Mining in Yamuna Basin
May 2020	Advocacy	Why indiscriminate river bed mining is wrong, dangerous and unethical
May 2020	Uttar Pradesh	Yamuna facing illegal, in-stream mining during lockdown
May 2020	Uttarakhand	Yamuna Riverbed Mining: Miners, Govts throw rule book in river
July 2020	Uttarakhand	Govt must remove illegal bridge on Yamuna to prevent flood disaster
Aug. 2020	Uttarakhand	Uttarakhand: Finally, Yamuna illegal bridge gone. But will govt learn?

What is Sand

- Natural, Common, 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



Sand



Silt



Bajri (Balu)

Background image riverbed mining in Arin, which flows into the Jhelum river via Wular Lake in Kashmir (Athar Parvaiz/Third Pole)



Gravels



Pebbles

Jammu Kashmir



The Jammu and Kashmir (J&K) State Industrial Profile from Union Ministry of MSME (Micro, Small and Medium Enterprises) for 2016^{vi} opening line in the section under “Sand & Bajri” says: “Enormous quantities of sand, pebbles and shingles are available in the Chenab and Tawi rivers and the numerous Nallas and hilly-torrents of the state.” That says a lot. The report goes on to talk about environmental impacts and restoration requirements, etc, but in absence of credible and accountable compliance and governance, this remains hollow.

The issue of riverbed mining in J&K is very sensitive from the perspective of livelihood of miners and fragility of rivers. Earlier, the state was reportedly facing revenue losses worth Rs. 300 crore annually due to illegal riverbed mining activities. After removal of Article 370 in Aug 2019, converting the state into a union territory (UT), the situation has gone worse.

The act has also undone Article 35 A providing exclusive rights to local people, boatmen on mining business thus opening the valley for the big mining companies with highly mechanized equipment from outside the UT.

No level playing field for local miners In Jan 2020, about 260 blocks across 10 districts have been identified for mining operations. Later, around 173 blocks were opened for quarrying activities through online auctioning. Most of these blocks are along the Jhelum & its tributaries.

The online bidding was invited following High Court order. However, in absence of proper internet services, & on account of high bid prices; local miners were largely deprived of the level playing field. The few who somehow managed to participate in online auctioning could not win a single bid.

On the other hand, there are reports showing a racket of a few companies winning about 150 blocks for mining. Subsequently, a number of allotted blocks were cancelled for varying reasons from winners failing to submit initial bids and bidding money for different blocks coming from single account source.

Issue of livelihood As per reports, mining activities were source of employment for at least about 1.5 lakh people in J&K. These includes miners, boatmen, diggers, loaders and vehicles owners. They feel that the new arrangements of govt post Aug 2019, has systematically affected their livelihood. The administration has also been penalizing the boatmen, miners and other locals extracting the riverbed minerals.

Uncertain future of rivers There is J&K Environment Impact Assessment (EIA) Authority to safeguard environmental resources and 8 members J&K Expert Appraisal Committee (EAC)

to assist the authority. Though independent experts scrutinizing mining proposals before EAC have revealed that several mining plans submitted by outside bidders fail to fulfil required norms and are bound to face rejection. However, they also feel great pressure from political quarters pushing the clearances.

Environmentalists are also apprehensive that mechanization of riverbed mining in the ecologically fragile rivers could severely affect the aquatic biodiversity including native, exotic fish species. Moreover, they fear, stripping riverbed of minerals would result in significant changes of river geomorphology, flowing channel.

Thus the act could have adverse impact on water resources in the region and would also aggravate destruction during flash floods, cloud bursts events by letting loose the deluge on human settlements by the rivers or leading to breach and damages to embankments, flood protection structures and other infrastructures including bridges.

In recent past there have been incidents where uncontrolled riverbed mining has brought environmental destruction. The threat to 105 MW Lower Jhelum Hydro Project (LJHP) structure due illegal mining is the latest incident. The Jhelum, Tawi, Ravi, Chenab, Arin and Papchan are some of the mining affected rivers in J&K.

Inter-state dispute: There have been reports of illegal miners from Punjab Ravi river basin mining in Kerrian Gandal area of Kathua district resulting in public outcry and posing a grave threat to the newly constructed Rs 160 crore bridge as well as flora and fauna. Even the district administration was threatened by the mafia when the former was initiating action against them in Jan 2020. <https://sandrp.in/2020/04/18/jk-sand-mining-rivers-exposed-to-mechanized-mining/>

Sand Governance in Lurch Presently the mining proposals are being [hastened](#). The local miners including boatmen, diggers are facing administrative restrictions, actions. The illegal mining is also happening in night hours. Voices are also being raised advocating permission to manual quarrying only.

The EAC, Department of Mines and Geology (DM&G), Fisheries Department, Irrigation and Flood Control Department (I&FC), District Administrations and Police Department are involved in sand mining governance. The [website](#) of DM&G has not been updated for long. There is no information about district level studies, replenishment study, and number of mining leases, revenue earned, fines imposed, cases filed, formation of district mineral foundation (DMF) and collection and utilization of fund.

The DG&M is also short on human resources. The mafia managed to create scarcity affecting construction works of government and public and then supplying building materials from their stocks at increased rates while administration acted helpless. There is lack of coordination among concerned departments of DG&M, Revenue, Police, Fisheries, Environment and I&FC. While mining and flood control departments blame administration of inaction and corruption as main reason behind unhindered illegal mining operations, the police department underlines interference by influential people with political connections rendering their efforts ineffective.

Threat to Fish Diversity J&K is famous for trout, Mahaseer and many other fish species. It produces 20,000 tonnes of fish annually providing livelihood to around 1.10 lakh people. There are 534 trout units established in the private sector. Around 1,500 new trout farming units are to be established in the next 4 years under Pradhan Mantri Matsya Sampada Yojana.

However, the excessive mining activities have been adversely impacting fish diversity, habitats and breeding grounds. In altered mining landscape after revocation of Article 370 in Aug 2019 allowing mechanized mining by outsiders; experts and dependent people are worried over its

inevitable impact on fish diversity and livelihood. Experts have also said that mining plans must have EIA components safeguarding aquatic and fish biodiversity.

As per rules, mining operations also require clearances from Fisheries department, however it is not being consulted. The department has also expressed its apprehension through letter to principal secretary in July 2020.

“The illegal, unscientific and rampant extraction of bed material like sand, Bajri, boulders etc. from these natural water bodies have also led to annihilation, extinction and extermination of fish biota from these habitats due to ecological imbalance without consideration of Environmental Action Plan. Moreover, the trenches/pools so created by mechanical extraction acts as mortality ditches in which the fish particularly the juveniles get trapped and thus cause substantial damage to the fish species.” <https://www.thethirdpole.net/2020/08/18/sand-mining-threatens-kashmirs-trout-industry/>



Impacts

Environmental

Aquatic fauna, avifauna, water pollution & scarcity, noise pollution, riverbank erosion, flow disruption, groundwater depletion, river morphology (details)

Socio-Economical

Affects River based rituals, riverbed/bank farming, fishing, boating community, rural roads, and common community lands

Infrastructural

Damages to bridges, power poles, water supply structures, embankments, barrages, hydro projects, roads

Himachal Pradesh



Over the years extraction of riverbed minerals has increased significantly in Himachal Pradesh. As per 2016 figures HP was procuring about 35 lakh tonnes of sand, gravel & boulders. The proliferation of infrastructure projects including real estate, buildings, hydro-power projects has been key reason behind increased pressure on rivers to supply the growing minor minerals demand.

Ambiguity in governance The [website](#) of Geological Wing, a department of industries mandated to manage mining operations, has some valuable information on the issue including Geological maps and district survey reports. The reports have not been updated for long.

The status of DMF formation and collection and utilization of funds like in the case of J&K. There has been no information on carrying capacity and replenishment study which is essential for ensuring sustainable mining practices. Similarly, the amount of riverbed minerals being extracted, number of illegal mining cases being registered and proved in courts are not known.

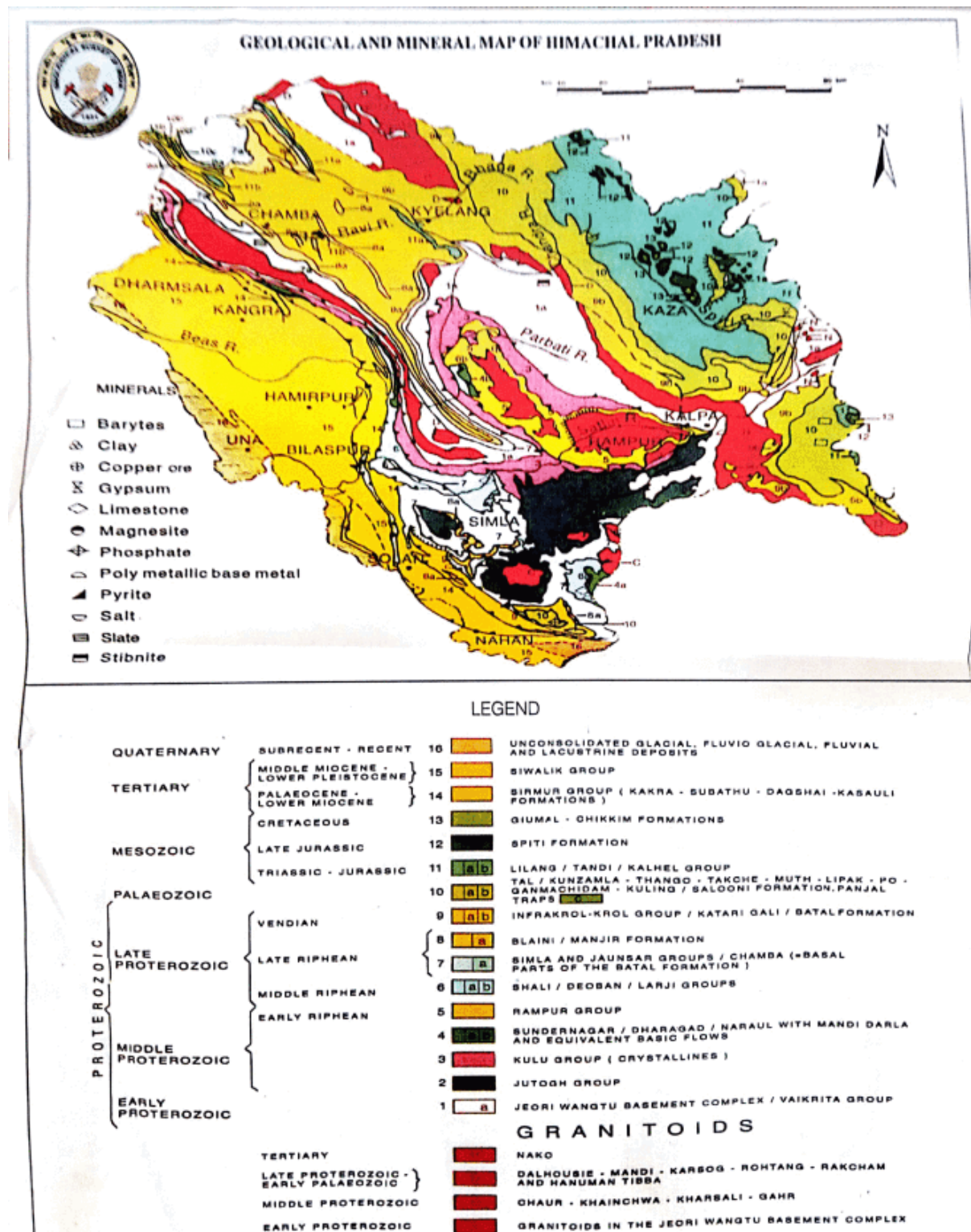
In a legal dispute, last year the member secretary of Himachal Pradesh State Pollution Control Board (HPSPCB) claimed that the department is not accountable for monitoring and checking the impact of quarrying activities inviting rebukes from NGT. There have been incidents of threats and attacks on government officials and media persons.

Revenue Driven Though main objective of state government is generation of revenue, however data on revenue earned over the years is not available. Reports reveal that in 2018-19, the state government had selected more than 450 sites for mining. Most of these have been auctioned. Even the tribal districts of Kinnaur and Lahul Spiti are being opened for riverbed quarrying against the consent of gram panchayats.

Lack of Monitoring, Corruption In growing trend across the country, the central and state governments are stressing on technological intervention to deter illegal mining incidents. However, the case of Himachal Pradesh shows that it has failed to make any impact. There have been reports revealing CCTV camera not functioning, being damaged and stolen rendering the efforts futile.

There are reports of extortion and *gunda* tax in connivance of government departments. Reports also reveal that in most of raid cases the illegal miners are being alerted in advance helping them escape the actions. The illegal activities are also being supported by politicians.

The stone crushers lobby is influential opposing the reforms and scrutiny. As a result of all this, the judicial orders by National Green Tribunal (NGT) and High Court are not being implemented effectively.



Geological map of HP from the website (<http://emerginghimachal.hp.gov.in/miningstone/>) of Geology wing of the Industries Dept of state Govt.

Impact on water sources, villagers The upper, middle and lower stretches of rivers and streams are subjected to growing excavation activities in almost all the districts. The Mandi district is most affected while least cases are reported from Solan. The plight of big rivers like

Sutlej, Tons, Beas and perennial tributaries like Pabbar, Neugal, Binwa, Sainj, Kansa, Suketi is not much different. In fact excessive quarrying operations have been found a significant reason behind degradation of rivers in HP.

With growing adverse impact on damages to river channels, groundwater level, farm land and forest areas, the affected villagers and concerned have held several protests demanding strict action against unsustainable mining practices. The excessive mining has also led to damages to flood protection structures, bridges, water and irrigation schemes, fisheries.

The farmers & villagers in Indora area along Beas river are severely affected by excessive mining and stone crusher industries causing fall in groundwater table apart from damaging the fertile lands. While the Thural villagers in Palampur have complained of round the clock mining in Neugal river causing chest & lungs ailments affecting the adults & breathing problems affecting the kids.

Interstate Mining Issues Riverbed minerals are also being supplied to neighbouring state of Punjab through legal & illegal ways. The Kangra, Una & Sirmour districts share borders with neighbouring Punjab & Uttarakhand where the Beas, Chaki, Swan, Giri, Bata & Yamuna rivers are facing large scale mining operations by stone crusher industries from both states who also keep accusing each other for carrying out illegal mining and harming their business interests.

Given the scale, intensity and impact of mining activities, there are fewer reports in English media on the issue while the local Hindi outlets lack necessary depth and reliable details. <https://sandrp.in/2020/04/25/himachal-pradesh-sand-mining-2020-no-replenishment-study-district-foundation/>

Damages to Fisheries In a written reply in the state Assembly the Fisheries Minister Virender Kanwar in 2019 accepted that apart from climatic reasons, illegal mining, unscientific dumping of road construction debris are also responsible for destroying the fish breeding grounds in the rivers of HP apart from impacting the aquifers. The state has produced 563 tonnes of fish in 2018-19 till Jan and its production is declining. <https://www.tribuneindia.com/news/archive/himachal/illegal-mining-causing-damage-to-fisheries-admits-himachal-minister-728400>



Uttarakhand



The Gola, Nandaur, Ganga, Kosi, Dabka, Yamuna, Khoh, Asan, Alaknanda, Pindar, Saryu, Sharda rivers are already subjected to unsustainable, illegal mining. There is attempt to allow more mining spots and deeper mining in these rivers. The mining lobby has become influential. It has been successful in illegally mining riverbed minerals (RBM) and pressuring government to open more areas for mining.

With establishment of stone crushers industry, scale and intensity of RBM excavation has further increased in past few years. The government lacks monitoring, transparency, accountability in checking the unscientific, unauthorized riverbed mining operations.

As per available information, in 2001-02 the state government was earning Rs.16.09 Cr revenue from RBMs which increased to Rs.112.39 Cr by 2011-12. No information is about this after 2012. Media reports reveal that presently annual revenue generation through RBM excavation is at least Rs. 300 cr and government is increasing the target.

Around 70 percent of RBMs mined are supplied out of the state. About 1 lakh workforce engaged in mining activities and most of them are migrants from Uttar Pradesh, Bihar and even from Nepal. Apparently they are not given benefits of DMF fund meant for their welfare.

Government Promoting Unsustainable Mining In past two years the Uttarakhand govt has taken decisions essentially relaxing, diluting or bypassing existing norms thus promoting excessive and unsustainable riverbed mining.

Early in 2019, it has first allowed mining within 100 metres distance of either side of bridges which was previously restricted upto 1 km by Nainital High Court. The government then has doubled the depth limit for minerals excavation from 1.5 m to 3 m.

Likewise, it has authorised district magistrate to allow mining proposals on private lands without any provision of scrutiny by experts. The government has been frequently amending the mining and crushers policies primarily to allow more mining and generate more revenue.

River Training Policy The state government has also formed controversial river training policy. It allows deepening of river to channelize the flows in the central areas of rivers. The reason behind the policy is stated to provide safety against flood destruction. The dug minerals are supposed to be placed along both banks to restrict flows in middle portion.

However, the state government has resorted to facilitate mechanized mining of rivers and allowed the miners to auction the minerals without any impact assessment. The Uttarakhand High Court, in response to petitions, has questioned the mechanized mining activities which

are found to be causing more damages to adjoining farmlands, village paths. But there is no change in government approach so far.

In case of Khoh river in Kotdwar, the riverbed mining activities has resulted in large scale destruction of lands and public, private infrastructure along the river. In July 2020, two kids have died by getting drowned in (25) deep mining pits in Khoh river. Facing public anger the government has reportedly sanctioned about Rs 2 cr to undo the destruction which clearly shows that the policy is doing more harms to rivers and people but there is little remorse on the part of the government.

Crusher Units-an emerging threat The crusher industries is causing more destruction of the rivers, forest areas and dependent communities in Uttarakhand. The crusher industry has been divided into four categories of stone crushers, screening plants, mobile crusher plants and hot or ready mix plants according to their functioning and production capacities.

The mobile crusher units are allowed to facilitate construction of Char Dham Highway project and Rishikesh-Srinagar Railway line work. In violation of rules, the screen plants and stone crushers have been established as close as 50-100 metres from riverbanks. Then there is no clear information in public domain whether mining a particular site is being done under mining or river training or crusher policy.

Several stone crushers and screen plants have been established along pristine wild rivers. As a result the local people have been exposed to noise, dust pollution impacting their health adversely. The activities have also negatively affected the common land, forest areas, farmlands and water sources on which a large number of local people depend for fuel, fodder and subsistence.

Mining unabated in lockdown, monsoon There are several reports showing no halt in riverbed excavation during the lockdown period during Covid-19 pandemic in 2020. Hardly a month after lockdown, the government permitted resumption in mining activities, claiming that mining was allowed to provide livelihood of mining labours. However fearing lack of social distancing during mining operations, the local people and miners objected to the plans. The mining labours in large numbers had reportedly left for their hometowns in Nepal, Bihar and Uttar Pradesh.

At the end of May, the mining activities are usually stopped in wake of arrival of monsoon season where rivers in hills experience frequent flash floods. However the government extended the mining period for full one month this year, till end of June 2020. Again at the end of June, it permitted miners to transport their stocks from riverbed for next one month.

Pushing more mining in forest areas The mining in forest areas is done under Forest Development Corp (FDC). The website of FDC shares that about 13 mining leases on 8 river stretches across Uttarakhand targeting a volume of 15.278 Mm³ over 5300 ha are functioning.

There have been plans to allow more excavation of rivers and streams inside and around buffer zones of protected forest areas without consent of the wildlife board. The mining plans inside Nandhuar Wildlife Sanctuary was stopped after intervention of High Court.

Similarly, locals have shared concerns over excessive mining on Song river Dehradun inside forest areas with the involvement of forest department officials in last one year.

One of the key reasons behind Uttarakhand government seeking permission for diversion of 778 ha of the Rajaji National Park (RNP) allegedly on temporary basis for Kumbh 2021 event is, to keep Haridwar Kumbh area open for mining activities in Ganga which if declared a Kumbh Kshetra – as the saints have been demanding – would rein in riverbed mining activities there.

<https://india.mongabay.com/2020/05/uttarakhand-eyes-a-part-of-rajaji-tiger-reserve-for-kumbh/>

Scale of mining and impact on wildlife and rivers is so serious that the National Board for Wildlife (NBWL) in June 2020 has raised concerns about extensive sand and boulder mining projects in Uttarakhand. In its June 2020 meeting it has recommended a study of the cumulative impact of the mining for consideration of future projects. There are over 100 sand mining leases operational in the state, according to its geology and mining department. NBWL had received three proposals for sand mining along the Asan Wetland Conservation Reserve and five along the Rajaji National Park's boundary near Haridwar. <https://www.hindustantimes.com/india-news/wildlife-board-calls-for-study-on-impact-of-sand-mining-in-u-khand/story-BZVSUqRi4wBOAzQtGgQBCL.html>

Non-compliance, corruption Its evident that no rules of sustainable mining are being adhered to in Uttarakhand. Incidents of formation of illegal makeshift bridges across rivers, in stream mining, excessive excavation with heavy machines which are prohibited are quite rampant.

The various recommendations of installation of CCTV cameras, drone surveillance, GPS bar codes, computerised entries of minerals transporting vehicles etc. have not been taken up with any honesty or sincerity. The government even considered removal of Radio Frequency Identification Chips (RFIDs) intruded on vehicles engaged in Gola river mining in Haldwani. Some vehicle operators were learnt to deliberately destroying the chips which was registering the vehicles entries in mining zone.

The officials of forest dept, mining dept, SPCB largely remain silent on clear violations. The norms of air, water, noise pollution are flouted by stone crusher units. The local administration is often complicit in allowing illegal mining activities.

The mining leases, stone crushers, screen plant contracts are mostly allotted to influential people or relatives of top government officials, politicians and ministers. The G&MD, forest, police depts are short of human resources, further affecting monitoring & compliance work. The police personnel have been reported receiving bribes to allow illegal mining transportation. As per locals, this is key reason behind mining activities taking place during night hours.

Departments ineffective The M&GD are largely inefficient. The website has not been updated for past several years. There is no information regarding district survey reports and replenishment study. The information regarding DMF formation and utilization of funds and the functioning of State Environment Impact Assessment Authority (SEIAA) and District Environment Impact Assessment Authority (DEIAA) is not in public domain.

Inter-state mining dispute About 250 km stretch of Yamuna river in Vikas Nagar tehsil Dehradun forming border with Himachal Pradesh state is severely ridden by excessive mining operation from both states.

The illegal miners from both sides invades the river and escapes to their states whenever there is action by administration. It has also been noticed that the both state governments are not acting against influential miners having links with ministers or politicians across the river. A part of this is under forest department. The local people have raised the issue many a times in past one year. Despite this, there is no change in scenario.

The excessive mining activities in Yamuna has led to damages of Shakti canal embankment-cum-road and undermined structural safety of Dakpathar barrage. Similarly, the administration of Kotdwar and Uttar Pradesh are often at odds over mining rights and activities in Khoh river.

Plans of mining in Ganga afoot In spite of studies, court orders the state govt has been exploring the opportunity of riverbed mining in Ganga river in Rishikesh and Haridwar. So far, the prolonged agitation and struggle by Matri Sadan Haridwar has been successful in halting the large scale mining in Ganga river.

Climatic Threats Looming In the context of climate change excessive river bed mining seems increasingly dangerous.



Punjab



Illegal mining As per government's sub-committee report Punjab has sand for over 90 years and gravel for 170 years. The total length of rivers in Punjab is 1,150 km with an average width of 500 metre. The total area is 575 sqkm and 32 lakh tonnes of sand can be mined from a one sqkm area having 10-feet depth, according to Govt of India statistics. Thus a total of 184 crore tonnes of sand can be mined from the 575 sq km.

The demand of sand was estimated around 2 crore metric tonnes per year in 2018 which has now doubled to around 4 crore metric tonnes. Around 70 per cent of the mined sand is consumed by government projects. With, only 15 mines officially functioning the production is below 40 lakh metric tonnes. This clearly indicates that the rest of the demand is being met through illegally mined sand.

Over past many years, illegal sand mining related incidents are increasing in Punjab. A huge sand mining scam was exposed in 2015-16. It became an election issue for 2017 state assembly where the current ruling party promised to rein in the illegal mining menace. The situation has virtually remained unchanged despite change in government.

Destruction Sutlej, Beas, Swan and Ghaggar rivers have been facing large scale illegal mining and are also being mined for gravels by stone crushers which in turn are affecting the riverbank communities. The adjoining farmlands, Panchayti land and shamlaat land all are under threats from illegal mining activities.

The brazen riverbed mining activities are not only causing economic losses but also resulting in twin water disasters. There are reports revealing, illegal mining leading to decline in groundwater table in several villages in Ropar and Mohali. As per experts, the unchecked digging up of the riverbed in the district has not only resulted in the depletion of water table in the adjoining areas, but also in groundwater pollution.

Officials in the Agriculture Department said such complaints had increased manifold since the mining had been noticed in the rivers, especially in the Sutlej, during the last decade. Though water was found at 5 to 8 feet in villages on the river banks, now farmers are digging up new borewells up to a depth of more than 40 feet.

<https://www.tribuneindia.com/news/archive/punjab/in-ropar-illegal-mining-takes-toll-on-groundwater-802078>

The unchecked mining has also led to breaching of embankment along Satluj in Ropar and Jalandhar districts causing large scale flooding. In September 2019, over 4,000 hectares of crops in six districts of Punjab was destroyed due to the flooding of the Sutlej river. Ropar, was the worst affected of all the districts, with nearly 1,715 hectares were completely destroyed. Illegal sand mining is mentioned as one of the chief causes of flooding in the district. <https://www.tribuneindia.com/news/punjab/cong-mps-bajwa-dullo-seek-independent-probe-into-sand-mafia-operation-in-punjab-126966>

The illegal sand mining in both rivers of Sutlej and Ravi with heavy machines seemed to have weakened Dhussi bundhs, especially in Ropar district. Due to this, huge craters were formed in river beds which changed the course of the river. Thus, the Dhussi bundhs got damaged and breached flooding villages and farmlands. The report also revealed that the Bhakra Beas Management Board (BBMB) had time and again written to the authorities and pointed out that sand mining was a serious issue. <https://www.newindianexpress.com/nation/2019/sep/01/illegal-mining-and-encroachment-of-riverbeds-lead-to-massive-flooding-in-punjab-2027514.html>

In March 2020, illegal sand mining and operation of crushers in Sutlej river bed is found posing threat to the Power Transmission Towers in Anandpur Sahib. <https://www.tribuneindia.com/news/illegal-mining-poses-threat-to-power-towers-56528> Same month, the Agampur bridge on Sutlej River near Anandpur Sahib was facing collapse threats on account of illegal mining. <https://www.tribuneindia.com/news/a-bridge-too-far-56036> In December 2018, also Illegal mining in Sutlej river near Anandpur Sahib was found damaging the foundation of a high-tension wire pole. Concerns over safety to the pillars of a Agampur bridge were raised at that time also. <https://www.tribuneindia.com/news/punjab/illegal-mining-poses-threat-to-power-supply/705108.html>

Political Turmoil Targeting around Rs 1000 crore revenue, the new government had put 110 mines for auctioning. However despite several round of bidding it could not auction more than 25 sites.

In January 2018, Rana Gurajeet Singh, a cabinet minister in the government having charge of irrigation department had to resign for irregularities in auctioning of sand mines. As per reports, he had formed company in his cook's name his cook's name which borrowed Rs 5 crore from a contractor accused in a multi-crore scam in his own department. Later, over 30 MLAs were found involved in illegal mining activities directly or indirectly.

In March 2018, the CM himself tweeted aerial images of large scale machined mining in Sutlej river in Phillaur and Rahon. Under government sub-committee on mining, Navjot Singh Sidhu, the then Local Body Minister visited Telangana and Andhra Pradesh to work out new sand mining policy. <https://sandrp.in/2019/01/25/punjab-sand-mining-2018-overview-sad-saga-of-state-failure/> <https://sandrp.in/2020/01/18/punjab-sand-mining-overview-2019-story-of-political-patronage-goonda-tax/>

Judicial Intervention By the time new policy Punjab State Sand and Gravel Mining Policy-2018 came out in October 2018, (replacing Punjab Mines & Minerals Rules 2013) the High Court stayed allotment of new mining leases as the auctioning was being done without any replenishment study and without even identification of the rivers stretches in violation of the apex court 2012 judgment.

Interestingly, the new policy was opposed by contractors, small traders who have not shown much interest in auctioning processes. Some farmers even demanded direct mining permission from their fields however the present mining rules do not permit this.

Punjab is among five states whom the SC has served notices in July 2019 seeking persecution of persons involved in illegal sand mining. The hearings in High Court is going on. 15 mines out of 110 auctioned in 2017 officially functioning. Apart from these, mining is legally banned.

In June 2020, the Punjab and Haryana High Court has directed Ludhiana's Deputy Commissioner as well as its district and sessions judge to visit the sites, where illegal sand mining is alleged to be taking place and submit a report within fifteen days. <https://indianexpress.com/article/cities/ludhiana/high-court-on-ludhiana-illegal-sand-mining-6481868/>

In August 2020, a report submitted to the High Court by a judicial officer has revealed that illegal checkpoints are rampant and exist in Rupnagar district for collection of 'royalty' from trucks carrying mining material. <https://www.hindustantimes.com/chandigarh/rupnagar-cjm-to-high-court-illegal-nakas-collecting-royalty-from-mining-trucks/story-eA0d83wKseEjqLiZy7UYL.html>

Later in the month, the High Court while dismissing the anticipatory bail applications of 17 people booked for theft and under MMDR (Mines Minerals, Development and Regulation) Act, sought a report from the state within three months regarding the requisite steps taken to curb illegal sand mining. <https://indianexpress.com/article/cities/chandigarh/hc-seeks-report-from-punjab-on-steps-taken-to-curb-illegal-sand-mining-6565934/>

Taking serious note of the illegal mining, the High Court has prohibited mining activities 1 km from the National Highways and half km from State Highways in Punjab in September 2020. The court has also directed DCs and SSPs of three Punjab districts (Nawanshahar, Jalandhar, Ludhiana) to constitute special flying squads to check illegal mining state within two weeks and submit a status report by Sept 30. 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. <https://indianexpress.com/article/india/no-sand-mining-within-1-km-of-national-highways-half-km-of-state-highways-in-punjab-hc-6593287/>

The NGT in July 2020 has directed PPCB to recover Rs 315 crore from the contractors found guilty in illegal sand mining at three sites in Ropar district. <https://www.tribuneindia.com/news/punjab/ngt-crackdown-on-illegal-mining-in-ropar-orders-rs-315-cr-recovery-112112>

Government Failure In Feb 2020, DC Ferozepur wrote to Principal Secretary expressing concerns over drug smugglers involvement in illegal sand mining. In Apr 2019, a DGP level official was booked in connection of an illegal sand mining case. The probe reached nowhere.

There is no information on what happened to Narang committee report probing the 2015-16 mining scam. Reports also reveal, drug mafia's involvement into illegal sand mining business. There are reports of Goonda Tax collection in the state through illegal check posts (*nakas*). Relaxing the norms, government has been considering free sand for all.

In June 2020, the government issued an order appointing around 40 government teachers to guard prominent illegal mining checkpoints of Phagwara in Kapurthala districts in late hours but retracted after severe criticism.

Government has talked of and tried technological solutions like CCTVs, RFIDs, GPS, drones to monitor illegal mining activities but it has yielded no positive outcome so far. Similarly, the status of District Survey Reports, DMF formation and utilization of fund is not known.

In September 2020, Amritsar rural police launched control room number 8054104837 asking citizens to report illegal sand mining incidents and promising to keep informer's details secret.

<https://www.tribuneindia.com/news/amritsar/police-launch-number-for-info-on-illegal-sand-mining-138149>

Illegal mining incidents have been reported even during lockdown and monsoon months. **Practice of in-stream mining by barges & deep water mining by pumps has also been noticed.**

The attacks and threats to government officials, reporters, farmers and villagers have become routine affair. In July 2020, two boys drowned in a sand pit in Megha Mahatam village area under Guruharsahai subdivision, Ferozepur. <https://www.tribuneindia.com/news/punjab/two-kids-drown-in-ferozepur-village-120167>

In Dec. 2019, two youths engaged in mining work fell into 50-ft-deep sand mine pit in the Swan river near Bhalan village and died. Before this, in Oct. 2019, a villager of same village died after falling in a deep sand mine pit while crossing the rivers with cattle. Similarly, in April 2019, two youths from Haryana had drowned to death in sand mine pit in the same river. They were blanket sellers & had entered the river to take bath. <https://www.tribuneindia.com/news/punjab/two-killed-as-tipper-falls-into-pit-dug-up-by-mining-mafia-17006> Though Mohali is illegal mining infested area, there were just 50 cases filed in last three years. <https://www.hindustantimes.com/chandigarh/50-cases-of-illegal-sand-mining-in-mohali-in-3-years-but-trials-still-on/story-HmzHo0iVtmm9SpbF4YobNI.html>

Interstate mining conflicts The state has been often seeing mining dispute with neighbouring Himachal Pradesh. The stone crusher owners of Punjab allege that Himachal government has been providing several tax relaxation to its crusher industry and Himachal traders have been able to supply cheap gravel materials in Punjab state thus affected their interests.

The Swan river in adjoining Hoshiyarpur and Una districts of both states have been particularly subjected to large scale legal and illegal excavation causing adverse impacts on the river. The administration of both districts are often at loggerheads blaming each other for illegal mining in Swan under their respective area.



Haryana



The Haryana government has been insensitive on the issue of impact of illegal, mechanized mining on state's rivers. Over past two years it has allowed mining in all the districts adjoining the Yamuna river on the pretext of flood protection work. The embankment near Tajewala has been damaged and the HKB in Yamuna Nagar has been threatened by large scale illegal mining activities.

Villagers claim that illegal mining has been taking place on almost double the area than allotted. In violation of norms the mining companies have been found creating bunds, passages on and along riverbed all through the year. Most of the districts have not prepared district survey reports and managed to secure clearances on the basis of falsely prepared reports.

Inspection teams by Punjab and Haryana, Delhi HC and NGT have found river flows obstructed and diverted at will by miners causing change in natural flow path of the river. Apart from Yamuna districts, illegal mining activities are going on in Panchkula, Ambala and Mewat districts. <https://sandrp.in/2020/01/22/haryana-riverbed-mining-2019-yamuna-robbed-of-minerals-flows/>

Official destruction of Yamuna river A look at the mining department website reveals that officially upto September 2019 around 1.29 lakh metric tons of sand has been mined since Dec 2016 from 11 sand mining units spreading on about 500 ha of riverbed land in Yamuna Nagar district. Similarly upto September 2019 about 1.96 lakh metric tons of Boulder, Gravels, Sand (BGS) has been produced] from 12 mining units covering an area of 821.84 hectares in the district since June 2016. The mining activities has picked up pace since September 2017.

Overall around 1300 hectares of riverbed land and surrounding areas is affected by mechanized mining. However these are the official figures and villagers claim that on ground companies involved are illegally excavating much more minerals from much more areas.

Officially government has also allotted 125 units of stone crushers in the district. Most of the mining plans were granted environmental clearances in 2015. These mining activities are permitted for a period ranging from 7 to 10 years and this is just the beginning.

Seeing the river as a rich source mineral only it finds that in the decade of 1999-2009 on an average 25.26 lakh metric tons of BGS and sand minerals were annually extracted from the River Yamuna. In the year 2016-17 the district earned an amount of about Rs 24.74 crore as revenue/ royalty by selling 13.68 lakh metric ton of riverbed minerals. <https://sandrp.in/2019/11/22/rampant-unsustainable-riverbed-mining-in-yamuna-basin/>

Selling Precious Sand, Dirt Cheap According to official sources mining of riverbed material has been allotted at 23 locations along 70 km of river stretch in the district of which 12 are stone excavation sites where it is processed in crusher and screening plants and 11 are sand mining sites.

Mining areas vary from 20 to over 100 hectares. On an average around 150 to 200 trucks are loaded with sand from a single mining site. The capacity of a single truck is 600 to 700 square feet. Sand is sold in 3 different categories thick, mixed and dry and the prices vary from Rs 8 to 11 per square foot.

In general, miners gets about Rs 5000/- per truck of sand load in wholesale, which is then sold double the price to retailers and the same truck load of sand costs around 20 to 25, 000/- to consumers at the end of the chain. People employed by the mining companies also informed that the truck drivers are paid Rs 1 commission for per square foot of sand load.

About 2000 trucks of sand is being sold from these mining sites which is totally unsustainable. As per sources the sand is transported to far flung areas of Haryana and even to states of Rajasthan, Punjab, Uttar Pradesh, Delhi. Mining activities in all these states are facing some judicial restrictions. It seems, Yamuna river is under extreme pressure to meet the sand demands from these states. The riverbed has been massively dug up in all Haryana districts including Yamuna Nagar, Karnal, Panipat, Sonipat over past couple of years.

People in the profession inform that mining companies pay a sum of Rs. 40 to 50 million as price for a mining site locally known as Ghat. For 11 sand mining sites, the state government would annually earn about Rs 650 million in revenue, whereas the mining companies would earn around 2 billion. Obviously the government is selling the finite natural, common property resource at a dirt cheap price.

By November 2019, the Mining Department has resumed mining leases at 15 more locations namely Karnal (2 sites with 941 & 1199 hectares area), Panipat (1 site of 780.8 hectares) and Sonipat (11 sites of 481.81 hectares) and Palwal (1site of 221.47 hectares) districts. <https://sandrp.in/2019/11/22/rampant-unsustainable-riverbed-mining-in-yamuna-basin/>

CAG Report exposes government The Comptroller and Auditor General (CAG) report for 2012-13 to 2016-17 period titled Performance Audit on “Functioning of Mines and Geology Department” tabled in the state assembly in November 2019, revealed several shortcomings and deficiencies in the mining sector. The report also mentioned that the Mining Department had not done any independent assessment of mineral reserves available in the state. It further said that there were instances of non-compliance of provisions of mining rules and government instructions.

As per the audit report, there was poor monitoring of mining operations by department and boundaries of mines were not clearly demarcated on the ground. The report admitted that there were indications of change in river flow regime and ground water recharge due to excessive mining. As per the CAG report, the mining department was understaffed and against 206 sanctioned post only 125 were filled. It also revealed that mining department had not prepared district survey report as mandated and formed District Environment Impact Assessment Authority (DEIAA).

https://cag.gov.in/sites/default/files/audit_report_files/Report_No_4_of_2019_Revenue_Sect_or_Government_of_Haryana.pdf

The CAG itself got Geo Special Survey of three mining areas out of the 95. From the survey of the Gumthla North Mining Block, it was proved that the mining contractor had extracted minerals from over double (204%) the allotted area. The mineral mined by the contractor increased from 20.34 lakh tones to 44.72 lakh tones. It means, the State suffered a direct loss of about 110 per cent. The CAG report had also mentioned unhindered illegal mining citing the example of Nagli block Yamuna Nagar.

As per media reports the government did not recover Rs 1476.21 crore from the mining contractors resulting in revenue losses to the state. According to an estimate the Haryana Government was expected to earn a revenue of Rs 2133 crore per year from the 95 mining areas. But the CAG report found that the mining contractors were extracting minerals from double the areas and putting the State to a loss of more than Rs 5000 crore annually. <https://sandrp.in/2020/01/22/haryana-riverbed-mining-2019-yamuna-robbed-of-minerals-flows/>

Politicians-administration-mafia nexus Scores of report have been revealing strong nexus between the ruling party politicians-administration-sand mafia. The mining leases are bagged by politically connected or influential people. The Yamuna Nagar area of state education minister Kanwar Pal is illegal mining hotspot.

The mining minister Mukul Chand Sharma himself in February 2020 stated that illegal sand mining business is flourishing in the state with full support of police department. <https://www.jagran.com/haryana/panchkula-illegal-mining-under-umbrella-of-police-in-haryana-said-minister-moolchand-sharma-to-anil-vij-in-letter-20038328.html>; <https://indianexpress.com/article/india/haryana-illegal-mining-police-6273704/>

As per a November 2019 report, about 2500 illegal mining complaints were registered in the state in eight years from March 2015 to March 2019. Out of this FIR was filed in 487 cases. 332 cases have been heard and accused have been freed in 326 cases as the police was not able to present evidence. <https://www.bhaskar.com/haryana/ambala/news/haryana-news-illegal-mining-in-yamunanagar-4-year-2500-complaint-only-487-fir-registered-01590885.html>

There are reports revealing that miners have formed whatsapp group where they are leaked information by government officials about possible raids.

Infrastructural Destruction The large scale unsustainable mining operations continue to damages flood safety and water infrastructure in the state. The historical Tajewala barrage facing rampant riverbed mining was washed away in 2010 floods. There has been reports citing threats to even existing Hathini Kund Barrage. <https://sandrp.in/2016/03/02/unabated-riverbed-mining-in-saharanpur-up-puts-delhis-water-supply-under-threat/>

Even the canals are not spared of illegal mining. In September 2018, the western Yamuna canal had breached in Shekhpura area of Karna causing damages to agricultural lands. At that time, the villagers had blamed sand mining as main reason behind the breach. <https://www.tribuneindia.com/news/archive/haryana/karnal-farmers-blame-illegal-mining-for-canal-breach-647830>

In April 2019, the illegal mining activities damaged a large section of the RLDSE (Right Lower Down Stream Embankment) along the Yamuna at Tajewala village by carrying out illegal digging up to 50 feet deep along the embankment. The illegal mining was posing a threat of breach in the RLDSE and Hathni Kund Barrage during rainy season besides impacting the local environment and social life of villagers in the area. Sensing the gravity of the situation,

an officer of the IWRD of Yamuna Nagar district wrote to the higher authorities demanding a blanket ban on mining activity in the area. The 19,600-foot-long RLDSE, constructed close to the old Tajewala head works, was repaired at a cost of Rs 3398.43 lakh during 2011-2013.

<https://www.tribuneindia.com/news/archive/haryana/breach-threat-as-mining-mafia-damages-yamuna-embankment-755969>

In July 2020, the miners destroyed around 100 feet wall of embankment built under Kandi project in Yamuna Nagar district area bordering Himachal Pradesh. The project was built on Somb river in 1997 for providing local villagers irrigation water for hundreds of acres of land.

<https://www.amarujala.com/haryana/yamuna-nagar/embankment-uprooted-yamuna-nagar-news-knl362826197>;

<https://www.bhaskar.com/local/haryana/ambala/yamunanagar/news/mining-mafia-breaks-dam-of-kandi-project-in-dhanaura-village-127477253.html>

Non-compliance to rules rampant In past two years there have been multiple incidents of miners constructing cross sectional bunds across the Yamuna river in adjoining districts thus blocking flows and diverting river channel. The in-stream mining with heavy machines is rampant along the river. The mining activities are also conducted in night hours.

The state sponsored unsustainable riverbed mining and even illegal mining operations were happening during lockdown and even during monsoon season. There is no adherence to sustainable sand mining guidelines recommending installation of CCTV cameras, GPS bar code, and computerised entries.

Though there is Haryana District Mineral Foundation (DMF) Trust Rules, 2016 in place but there is no information about functioning of the DMF in Yamuna Nagar district. The locals are totally unaware of the DMF formation and utilization of funds. There is no government website sharing the details of money spent and activities undertaken under the provision. Given the opaque scenario, corruption and irregularities in the utilization of the fund cannot be ruled out.

Historic SC order facing complete violation It was industrial scale quarrying activities and its severe impact on people and water sources against which the February 2012 land mark judgement was delivered by Supreme Court. The apex court has not only banned all mining activities but also directed formation of DEIAA, SEIAA, replenishment studies, restriction on heavy vehicles, machines in mining and other important guidelines. However eight years after the historic judgement there the state has reached the same alarming or even worse situation of lawlessness in riverbed mining and quarrying activities.

Departments complain lack of resources The Irrigation, PCB and Mining departments are often pointing fingers at each other and keep on passing the responsibility of stopping illegal mining activities.

The PCB and Mining Department have been complaining about lack of human resources including technical persons and basic office infrastructure. The CAG report has also found that the mining department was understaffed and against 206 sanctioned post only 125 were filled. The government has been earning revenue in crores from riverbed mining but has not been spending funds on capacity building of respective departments.

Deficit Basin, River Biodiversity in Peril The govt is promoting riverbed mining with full might in Yamuna as a solution against annual floods. However the destruction of flood management structures as mentioned above proves that the act would lead to bigger flood disasters.

Additionally the large scale mining has weakened the riverbanks and there have been several cases of riverbank erosion even damaging the farm lands. Given the unprecedented scale of

riverbed excavation, villagers have been complaining of falling groundwater level in districts along Yamuna. The upper Yamuna basin has been monsoon rainfall deficit of 33% & 29% in 2019 & 2020 respectively. The river has been already extensively mined and the exploited reserve has not been replenished.

Currently when river channel should have been full of flowing water, it has started drying up. The unsustainable mining of riverbed minerals would further disrupt the groundwater recharge processes, lean season flow and would create water crisis in dependent areas.

Villagers also say that the river in Yamuna Nagar used to be hotspot area for migrant birds however of past two years there is remarkable fall in sightings of migratory birds as the entire area has been converted into a mining zone where hundreds of vehicles, machines are operating non-stop producing enormous noise and water pollution.

Violence As per media reports, in past two years at least 13 villagers including 5 kids have died in accidents involving illegal mining activities. There have been several incidents of attacks, threats and intimidations to villagers, farmers and government officials.

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 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.

Uttar Pradesh



CBI inquiry reaches nowhere, court orders lack implementation The National River Ganga and its key tributaries Yamuna, Chambal, Ken, Betwa, Sone and other several rivers have been facing indiscriminate illegal riverbed mining for over a decade. Following large scale illegal mining incidents, the NGT in past few years has issued significant orders.

Towards the end of 2018, the Central Board of Investigation (CBI) had also started inquiry into illegal mining case in Betwa river in Hamirpur district which involved the then Mining Minister Gyatri Prajapati and the district magistrate among others. Despite multiple raids, arrest the CBI inquiry into illegal mining scam is yet to reach the conclusion.

The frequent transfers of official involved and sluggish pace suggest that it is being languished for vested political reasons. <https://sandrp.in/2020/05/27/up-riverbed-mining-overview-ngt-cbi-govts-cannot-stop-the-menace/>

Yamuna continues to be under mining threat Like Haryana, destructive riverbed mining has been reported from adjoining districts of Saharanpur, Muzaffar Nagar, Shamli, Baghpat and Greater Noida along Yamuna river in Uttar Pradesh. The NGT has been issuing several directions however reports reveal large scale illegal mining still going on in different parts of state including all through upper segment of Yamuna river.

In February 2020, the Kairana administration had permitted three mines at Nangla Rai, Mawi and Mamor where miners resorted to excessive, deep and in-stream mining with heavy machines apart from creation of cross sectional bunds compromising the flow of the river. Mining was conducted in late night hours even during lockdown and monsoon season.

The villagers, reporters were intimidated openly by miners at sites, who were even carrying weapons. The riverbed farmers, fishermen and other farmers were left on the mercy of miners. <https://sandrp.in/2020/05/17/yamuna-facing-illegal-in-stream-mining-during-lockdown/>

The act has left deep sand mine pits in riverbed and also compromised the safety of Kairana bridge. In Saharanpur the administration had to deploy PAC to control the illegal mining.

It is very sad that about 14 persons including 9 kids have died along the upper stretch of Yamuna in Uttar Pradesh side by drowning in deep mine pits.

No land for Yamuna It is even more surprising that the river has no land of its own and lacks legal protection. The entire floodplain, riverbed land & even the active course of river is owned by farmers. As the river retreats post monsoon, farmers from Haryana and Uttar Pradesh stake their claims on the riverbed and most of it is brought under cultivation. This land is titled as

Shamlaat and it becomes center of legal disputes, even physical fights among farmers of two states.

The mining companies also pay compensation to farmers for excavating sand from riverbed. As per rules removal sand layer deposited by floods on farmlands faces less restrictions and mining companies are taking advantage of the loopholes. The mining department acknowledges this. Actually, there is an attempt to create illusion that sand is being removed from the farmlands and not from riverbed.

Durga Shakti Nagpal: The bright episode that people remember even today.

Durga Shakti Nagpal, an IAS officer of 2010 batch from UP have become famous for acting against the "sand mafia", doing her duty as SDM in Greater Noida. This was mainly during the brief period of Aug 2012 to July 2013. The action was basically against illegal mining in [Yamuna and Hindon Riverbeds](#). It was illegal as it was without required legal permissions. Such illegal mining had major implications on rivers, environment, safety of people, flood embankments and also state revenue. Scale was huge: 250-350 truckloads per day. Approximately worth Rs 500 Cr per annum.

WHAT DID SHE DO: Some of the key steps: Her team was working with a number of other department and officials, including district mining officer, police and judiciary. They formed special investigation teams to stop illegal sand-mining in the [Yamuna](#) and [Hindon](#) river banks. They used surprise and secrecy to arrest illegal miners and to confiscate their machinery. A majority of the raids were conducted at [odd hours of the day](#).

WHAT WAS ACHIEVED: During April-June 2013, the Uttar Pradesh Police filed 66 FIRs and the Chief Judicial magistrate had ordered the arrest of illegal sand miners in 22 cases. The police had impounded 297 vehicles (including cars, dumpers, trucks as well as JCB machines) and machinery used for illegal mining. A joint operation involving the revenue, police and transport departments was launched and villages of Asgarpur, Nangla Wajidpur, Gulavli, Kambakshpur, Jaganpur Chaproli were monitored. The administration arrested 104 people who were fined ₹2 Crore.

- [On 5 Aug 2013, the National Green Tribunal ordered a pan-India suspension of all sand mining activity carried without approval from the Ministry of Environment and Forests](#). This interim direction was in response to a petition by NGT bar association.

SOME CONSEQUENCES: District Mining Officer (DMO) Ashish Kumar was transferred, Durga was suspended on July 29, 2013. Before that there were attacks on DMO and once on her team. Durga's Family was harassed. The DM Ravikant Singh who supported her work was also transferred. Durga was re-instated following huge national outcry in which there were cases in High Court and Supreme Court. In both cases the courts were supportive of Durga, but said the case can only be entertained if she herself approaches the court. Even PMO and Prime Minister had to make public statements.

Morang costing dearly to Ken, Betwa, Chambal rivers

The Bundelkhand region has become infamous for sand and stone mining. Influential politicians are often found in involved or supporting the illegal act. The river sand of dull orange colour in the region is known as Morang. The grain of this sand are bigger and coarser. For its strong bondage with concrete aggregation it is high in demand and transported to far away areas of various states. This sand is found in the Chambal, Ken, Betwa, Sone rivers systems and for the same reason these are being mined extensively.

Ken River In June 2019, the Dalit villagers of Khaptiya in Banda district had to undertake Jal Satyagrah against riverbed mining activities destroying their agricultural lands. The miners had even threatened the villagers and the local administration was found complicit in the act. <https://sandrp.in/2020/06/08/drp-news-bulletin-08-june-2020-banda-satyagraha-shows-tip-of-the-sandberg/>

In April 2019 also, the sand mafia had created bunds at various location in Ken river in Banda and Panna district impounding the water flow. The act not only aggravates the water scarcity in Banda and other Bundelkhand districts, but also threatened the safety of structures like a bridge in Panna. The administration accepted that the mining was happening without licence. The water crisis had turned so worse that there were large scale protests in Banda and administration had to deploy police force to keep a vigil on riverbed mining. <https://sandrp.in/2019/07/13/sand-mafia-build-illegal-bunds-in-ken-river/>

During Ken River Yatra in 2017-18 by SANDRP & Veditum, large scale mechanized mining was seen happening in Ken river at four locations in Banda. The fate of Chambal, Betwa and Sone rivers is more or less same. The intensity of mining and craters left in riverbed are clearly visible in even Google earth images. The rampant mining in these rivers has also been adversely impacting the gharial, dolphin, turtle and Sarus crane populations, movements and habitats.

Endangering Aquatic life The lower stretch of Yamuna river and its tributaries like Chambal, Ken, Betwa provide safe habitats to important and threatened aquatic animals like dolphins, gharials, turtles. However the increasing mining activities in recent years have threatened their survival.

Mining rackets The government administration has been found complicit in illegal mining activities. In Nov 2019, the police officials in Agra were found running a mining racket in which it was found not only supporting but also escorting illegal miners plundering natural resource from Yamuna and Chambal during nights in lieu of hefty bribes. <https://timesofindia.indiatimes.com/city/agra/illegal-sand-mining-agra-ig-seeks-reports-from-ssp-after-whistleblowers-share-video-clips/articleshow/71858756.cms>

In Dec 2019, the Irrigation dept officials, Bareilly were found facilitating illegal mining of 2.5 lakh cubic metre of sand from the DB feeder canal in Amaria block in just one month & causing royalty losses of around Rs 10 crore. <https://timesofindia.indiatimes.com/city/bareilly/probe-begins-in-mining-scam-in-irrigation-department/articleshow/72875654.cms>

Similarly, an inspector with the mining department was accused of being involved in the illegal lifting of sand from the Yamuna river in Shamli district in March 2019. <https://www.thehansindia.com/posts/index/National/2019-03-10/UP-Government-official-booked-for-aiding-sand-mining-mafia/510817>

Violence and sand mafia There are several notorious gangster and mafia involved in illegal mining business. A reporter for a Kanpur-based newspaper was killed on June 19 in Unnao district allegedly at the behest of a 'sand mafia' & illegal land grabbers. <https://m.thewire.in/article/media/shubham-mani-tripathi-journalist-killed-unnao-sand-mafia/amp>

In January 2020, SP MLA from Mohanlalganj, Ambrish Singh Pushkar lodged a complaint at PGI police station, alleging illegal sand mining from his agricultural land in Kalli Pashchim area under Sarojni Nagar tehsil. <https://www.hindustantimes.com/cities/sp-mla-lodges-complaint-of-illegal-sand-mining/story-65nC4QLZYdaduzRcsM1d6H.html>

In July 2020, a BJP MLA Yogesh Dhama wrote to CM Yogi Adityanath and the Director-General of state Police fearing for his life from notorious gangster Sunil Rathi for administrative actions against his illegal sand mining. <https://www.daijiworld.com/news/newsDisplay.aspx?newsID=735000> He was also accused of killing an RLD worker. <https://timesofindia.indiatimes.com/city/lucknow/sunil-rathi-ordered-rld-workers-killing-cops/articleshow/77188152.cms>

In Oct 2019, Pushpendra Yadav, a sand mafia involved in illegal sand mining operations was killed in an encounter in Gursarain area of Jhansi district. Before this, the accused had reportedly attacked on police team for seizing his sand-laden trucks. <https://timesofindia.indiatimes.com/city/kanpur/sand-mafia-killed-in-encounter-soon-after-attacking-jhansi-so/articleshow/71470973.cms>

In July 2019, one such gangster Sanjay Momnathal booked under the stringent NSA for illegal sand mining, was granted bail from Luksar jail. <https://timesofindia.indiatimes.com/city/noida/sand-mining-mafia-leader-granted-bail/articleshow/70150537.cms> (10 July 2019)

In Oct 2020, a video became viral about firing between two sand mining gangs supposedly from Fatehpur district of UP. https://twitter.com/Abhay_journo/status/1320052982537306112?s=08 (Oct 25, 2020)

In addition to these there have been several incidents of attacks and threats to government officials, reporters, villagers objecting to illegal mining operations in the state.

Ganga boatmen fighting for mining rights Sand mine workers of Prayagraj and Kaushambi under the banner of All India Kisan Majdoor Sabha (AIKMS) in November 2019 launched a massive campaign against the state government's June 2019 order stopping sand mining by boats from river ghats. <https://www.hindustantimes.com/cities/workers-launch-stir-against-ban-on-boat-in-sand-mining/story-PleDQrPA3Wy4NhxQTqbx1K.html>

Dredging threats The 80 km long stretch of Ganga river from Varanasi to Ghazipur is part of national waterways project. The river would be dredged to create depth required for smooth ship passage. Dredging is also a kind of mining, under which river minerals are removed. The act would be leading to significant adverse impact on river eco-system and aquatic diversity.

EC proposal of Sand mining on the basis of individual mine lease

Area of lease (ha)	Category	Requirement EIA/EMP	Requirement of Public Hearing	Requirement of EC	Who can prepare EIA/EMP	Authority to appraise/grant EC	Authority to monitor EC compliance
0-5	B2	Form IM, PFR and Approved Mine Plan	No	Yes	Project Proponent	DEAC/ DEIAA	DEIAA SEIAA SPCB CPCB MoEFCC
5-25	B2	Form IM, PFR and Approved Mine Plan EMP	No	Yes	Project Proponent	SEAC/ SEIAA	Agency nominated by MoEFCC
25-50	B1	Yes	Yes	Yes	Project Proponent	SEAC/ SEIAA	
>50	A	Yes	Yes	Yes	Project Proponent	SEAC/ SEIAA	

EC Proposal of Sand mining in cluster situation

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

With such rear view, what can we look forward to?

The North Zone sand mining report makes rather grim reading. With such rear view, what can we look forward to?

Key Conclusions, Recommendations Here while some questions are raised and recommendations given in the context of specific states, they are applicable to all the states.

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 operations. Should this be happening? Should we not try and understand what could be implications for local people and rivers there? Should the local people have a role in taking such decisions?

Punjab More than 65% of sand is being used in govt projects. Can there be rating points for infrastructure, building on the basis of quantum and source of construction material being used? The government should be able to ensure that the sand used in government buildings should not be illegally mined sand and where possible reduce the use of river sand mind and in stead use alternative sources? This is a suggestion for all the states. In fact the building ratings should be there for all kind of buildings, to reduce the use of illegally and unsustainably mined sand.

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

Haryana The govt is earning huge revenue from sand mining. Yet why mining departments & PCBs facing resource crisis? Why are mining approvals given for several years, when rivers keep changing course generally after every major flood?

Himachal Pradesh Is sand a minor mineral? Does its classification as minor mineral leads to neglect of the issues related to sand mining? How will it help if it is classified differently? These questions are of course relevant at national level.

Uttar Pradesh The court orders, guidelines by MoEFCC don't get implemented. Even CBI probe is languishing for years without reaching credible outcome. Why is judiciary not being effective in changing this? Why is media not highlighting these issues as much as necessary, particularly state and national media. Why is even civil society largely silent?

Central, All States The auctioning processes, EIAs, appraisals & public consultation processes, monitoring & compliance are plagued by major problems. How these can be improved?

What could be feasible, viable and sustainable alternatives to reduce dependence on river sand? What steps are necessary to achieve optimum use of such alternavies?

Will creation of fish sanctuaries, No Mining Zones help address the challenges? How can the otters, gharial, dolphins, turtles can be saved from illegal mining activities? What is NMCG doing to ensure that illegal and unsustainable sand mining is stopped and it does not adversely affect Ganga and its tributaries?

There is very little research about river sand mining that has such far reaching impacts. Some of the research may also not be known and accessible to wider stakeholders. We certainly need more research, and all research findings must be in proactively in public domain.

As far as sand miners, EIA consultants, Expert Appraisal Committees at central, state and district level (where existing), geo-morphologists, geologists and geo hydrologists are concerned, there is not too much known about them, we possibly need more research & analysis about role of these various key persons and organisations and who governs them. Similarly about the real estate companies and business and how they can be partners in curbing illegal and unsustainable sand mining.



END NOTES:

ⁱ Koehnken, L., and Rintoul, M. (2018) Impacts of Sand Mining on Ecosystem Structure, Process and Biodiversity in Rivers. WWF

ⁱⁱ "The Great Sand Robbery and impending Ecological Disaster", Economic and Political Weekly, Aug 13, 1988, pp 1669-1673

ⁱⁱⁱ Some of the recent documents: From MoEF in Jan 2020:

<http://environmentclearance.nic.in/writereaddata/SandMiningManagementGuidelines2020.pdf>; From Dept of Mines in March 2018: <https://mines.gov.in/writereaddata/Content/sandminingframework260318.pdf>.

Sustainable Sand Mining Guidelines of MoEF in 2016:

<http://environmentclearance.nic.in/writereaddata/SandMiningManagementGuidelines2016.pdf>

^{iv} e.g. The Supreme Court in its order on Feb 27, 2015 noted: "it (sand mining) may have an adverse effect on biodiversity as loss of habitat caused by sand mining will effect various species, flora and fauna, and it may also destabilise the soil structure of river banks and leave isolated islands."

^v e.g. Ms Sumaira Abdulali of Avaaz Foundation, Maharashtra, a prominent voice on the issue of sand mining, see: <https://www.youtube.com/watch?v=x2RBuWS28Sc>

^{vi} http://dcmsme.gov.in/dips/state_wise_profile_16-17/NEW%20SIP%20FOR%20PDF.pdf

The infographic is divided into two main sections. The top section, titled 'KEY INSTITUTIONS INVOLVED IN SAND GOVERNANCE', lists institutions under two categories: 'States/UTs' and 'Centre'. The bottom section, titled 'Illegal, Unsustainable sand mining', lists various illegal practices. The background features a stylized illustration of reeds or grass on the left side.

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
- 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
- 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