
ILLEGAL SAND MINING IN INDIA

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I. ABSTRACT

India is a mega-diverse geographical country. Our environmental contribution to its rich biodiversity is protected by our strong legal framework. Despite its richness, we face multiple threats and challenges to our environmental sustainability. One among them is illegal sand mining, due to which environmental sustainability is affected and leads the invaluable assertions on economic & ecological growth. Here, as a socially ethical member of the society, we are discussing the efforts to curb illegal sand mining and balance ecological preservation for sustainable growth of the environment and examining the repercussions and other socio dynamics as the involvement of sand mafias.

II. KEYWORDS

Constitution of India, High Court, supreme court, illegal sand mining, Mine extraction, Mineral extraction, environmental protection, sustainability, judicial precedent, legal provisions, public interest litigation, sand Mafias, theft, guidelines

III. INTRODUCTION

Sand Mine is *the "Extraction of primary (Virgin) Natural sand and sand resources from Natural environment for extraction of Valuables"* – ²

As per Sec 3(e) of the Mine & minerals (Development Regulation) Act 1957 – Sand is a "minor mineral". This Act is responsible for the state to regulate the extraction of sand mining and to control the illegal activities regarding mining. The government empowers the Environment Protection Act, 1986 with the regulation of unlawful sand mining still locked under the loophole for illicit gains of oppressive rulers and exploitative officials.

Article 51 A(g) of the constitutional provision states the fundamental duties of citizens which include the protection & improvement of the environment. Judicial intervention

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² According to <https://wedocs.unep.org/bitstream/handle/20.500.11822/28163/SandSust.pdf> - UNEP, 2019

through public Interest litigation has a pivotal part in addressing the pervasive issue of environmental concerns. "*Supreme Court recognized the issue, emphasized the effective measure to curb illegal sand mining activities*"³

IV. RESEARCH OBJECTIVES

- To widely examine the constitutional legal provisions and judicial precedents related to illegal sand mining.
- Impact of public interest litigation for prevention and protection through implementation of guidelines for environmental sustainability and overcoming the challenges faced for balancing the environmental resources.
- Judicial intervention for the concern of other socio-economic dynamics affecting the sustainable resource such as the involvement of sand mafias.

V. RESEARCH QUESTIONS

- How are the legal provision precedents, and guidelines by the National Green Tribunal, High Court, and Supreme Court preventing the illegal sand mining in India?
- Whether the public interest litigation is effective in protecting the sustainability of the environment without unbalancing the resource for future generations.

VI. RESEARCH HYPOTHESES

The Examining constitutional legal frameworks, judicial precedents, and guidelines established by the National Green Tribunal, High Court, and Supreme Court are effective in curbing illegal sand mining in India. Public interest litigation plays a significant role in promoting environmental sustainability and addressing the socio-economic dynamics, including the intervention of sand mafias, thus ensuring the balanced use of natural resources for future generations.

³ M.Alagarsamy vs Union of India, W.P.(C) No.1342/2018

VII. RESEARCH METHODOLOGY

The Research Methodology of doctrinal research is adopted for resources related to our topic concerning illegal sand mining in India. This methodology is adopted due to examining the judicial precedent, constitutional provisions and other important guidelines issued by the National Green Tribunal and analysing the Primary resource as which are legal resources related to the issue.

Also, the doctrine method helps us to examine the reports and surveys taken by officials to sort out the major issues for the investigation and development. This research paper discusses the comprehensive understanding of factors and repercussions of sustainable environmental issues and the legal framework to address socioeconomic involvement in illegal sand mining.

VIII. LITERATURE REVIEW

The Research drew a legal provision of the constitution of India, the Environmental Protection Act, the Mine & Mineral (Development & Regulation) Act, the regulations directed by the Judicial precedent, Analysed PILs filed in various courts concerning illegal sand mining, including reviewing case laws, judgments, and orders to evaluate the role of PILs in promoting environmental sustainability and addressing socio-economic concerns. Examining, guidelines issued by the National Green Tribunal and other regulatory bodies to assess their effectiveness. It reported the surveys conducted by government agencies and the research paper comprehensively explains the difficulties at ground level for prevention and other socio-dynamic economics.

IX. ENVIRONMENTAL IMPACT OF ILLEGAL SAND MINING

Illegal Sand Mining involves the unauthorized extraction of sand from various parts of the ecosystem like riverbeds, coastal areas, and forest dynamics without proper permits, and violation of environmental regulations.

Important usage of sand as raw material:

- A key component in the production of concrete in building construction.
- Other uses like Gas, Micro metal, and Electronics.

Our society is largely made up of Construction with Natural resources, a developing Country; India has rapid growth in urbanization and its infrastructure which demands sand which leads to a wide range of sand mining. The operation persists due to other demands of Jewellery Making, Paint, Plastics, Paper, Electronics, and Other Metals extractions like Zirconium, Titanium, Tin, Limonite, Rutile, Leucotomy, etc., *"What we are doing to the forest of the World is but a mirror reflection of What we are doing to ourselves and one another"* - Mahatma Gandhi.

As a quote of Gandhiji, the environmental impact of sand mining affects the Physical, Chemical, Biological, and anthropological system of ecology:

- Riverbed deepening and widening; Riverbed, -bank and slope instability; Increased erosion; Reduced sand replenishment; Altered hydrological table; Riverbed coarsening.
- Increased turbidity and total suspended solids; Increased concentrations of heavy metals, Pollution of are, water, and soil.
- Habitat loss and fragmentation; Smothered microorganisms, Reduced respiration and Photosynthesis; Reduced presence of benthic organisms; Noise pollution.
- Destruction of infrastructure; Loss of agricultural land; reduced yield of farmers and fisheries; increased risk of waterborne diseases; Poor working circumstances.

Environmental degradation loss of biodiversity *via pollution and direct impact on the Biophysical integrity of the ecosystem*⁴. *Water turbidity results in a decline in faunal biomass and abundance also shifts in species composition.*⁵ Loss of land by production of agriculture is affected by river erosion. Hydrological function by *removing sediment from the river causes the river channel through the bed of the valley floor both up and downstream leading to channel instability.*⁶ Removal of sand of more than 12 million tons per year from Vemband Lake

⁴ <https://www.unep.org/resources/annual-report/unesp-2014-annual-report> - UNEP, 2014

⁵ <https://www.unep.org/resources/annual-report/unesp-2014-annual-report> - UNEP, 2014

⁶ <https://www.unep.org/resources/annual-report/unesp-2014-annual-report> - UNEP, 2014

leads to the lowering of the river bed by 7 to 15 cm/year.⁷ The extreme event leads to floods and storm surges. Erosion occurs from direct sand removal from beaches at indirectly results from shore marine dredging. The challenging part is enacting provisional for different regions as the river passes through different geographical statuses.

X. CONSTITUTIONAL PROVISION RELATED TO SAND MINING

Article 48A, of the direct principle of state policy, directs the state to produce and improve the environment and safeguard the forest and wildlife.⁸ Under this, the regulation of rules sand mining and other environmental protection are enacted.

Article 51A(g), the fundamental duties of citizens to protect and improve the natural environment, including forest lakes, rivers, wildlife⁹ Which indirectly regulates the responsibility of the citizen in work towards the safeguarding environment Sustainability. Also Article 21 - "Right to Life" gives power to citizens to live in healthy environments, which empowers citizens to seek judicial intervention. Supreme Court declares illegal sand mining is a violation of Article 21 in many precedents.

List I of entry 54 & List II of entries 17 A and 23 - regulate the power & development of mines & minerals as National Importance and the State has control over mines & minerals.

- **Environmental Protection Act 1986** - "Grand power to issue direction to close, Prohibit or regulate industries & mining activities".¹⁰ "Production of water bodies from degradation due to sand mining"¹¹
- **From IPC** - Criminal conspiracy to engage in illegal sand mining; Cheating & dishonestly including delivery of property in mining contract¹² and Theft of sand from Government land or unauthorized excavation is punishable^{12,13}. "Police to file FIR on

⁷ <https://www.undrr.org/understanding-disaster-risk/terminology/hips/en0022> - UNDRR report

⁸ Art, 48A of dpp - Constitution of India

⁹ Art, 51A(g), - Fundamental Duties - Constitution of India

¹⁰ Sec 5 of EPA Act 1986

¹¹ Water Prevention & Controlling of Pollution Act 1974

¹² Sec 420 of IPC 1860

¹³ Sec379 of IPC 1860

*theft under sec 379 of IPC for illegal sand mining and emphasizing the state duty to conserve natural resource".*¹⁴ The Supreme Court stated that extraction of sand beyond the permitted limit or without an appropriate permit under the guidelines is considered as theft of movable property against ownership and the police can file fir on theft of movable property in such case.

- The National Green Tribunal was established to handle environmental disputes including illegal sand mining across states of India in 2010. *"National wide ban on sand mining without prior permission and environment clearance"*¹⁵
- **Mines and Minerals (Development and Regulation) Act, 1957** – Governs the mining sectors *"No person can undertake mining activities without valid lease"*¹⁶

XI. GUIDELINES ISSUED FOR REGULATION

The key impact for regulating the basic protection, and prevention of illegal sand mining through the guidelines of government policies, and support for the intervention against illegal activities. *"32-50 Billion metric tonnes of sand and gravel are aggregates in a year"*¹⁷

The government should take necessary steps towards sustainable technology from experts' suggestions like Adv. Parul Gupta, (Environmental Law) – opinionated that we are still engaged with legal & illegal mining instead, we must focus on sustainable & unsustainable mining.

Important elements in Guidelines:

- Feature of Guidelines is the proposal for the methods of curbing illegal sand mining,
- Distance b/w mining site on the river replenishment rate.¹⁸
- Conducting river replenishment study annually is a must,
- The rate of replenishment will be calculated before and after monsoon,
- Sediment load comparison per & post-monsoon period for different rivers,

¹⁴ State of NCT of Delhi vs Sanjay (2014) 9 SCC 772

¹⁵ Order by NGT 2013

¹⁶ Sec 4 MMDR Act

¹⁷ According to UNEP,2019

¹⁸ Sustainable sand mining management guidelines, 2016

- Remedial measures by sustainable mining practice key feature in the guideline,
- Prohibition of mining during monsoon,
- Haphazard extraction is to be strictly avoided,
- Conducting public construction for a matter of affection faced by localities due to the extraction of sand.¹⁹

The Recent serious action taken by the National Green Tribunal in May 2023, One of the strict penalties of Rs.100 crore on the Andhra Pradesh Government failed to prevent illegal sand mining in Avulapalli Reservoir Imposed by the National Green Tribunal. Growth of minerals and mines guidelines:

The growth of mineral-based industries in India started in the 1990s, one of the main recognitions is from the *"National Mineral Policy"*,²⁰ Which developed the desire for mining and used them as raw materials for industrial purposes. The Guideline for sustainable sand mining and research & development for unbalancing the geographical diversity framed with the *"Impact and methodology of systematic & scientific mining in the river bed material for sustainable riverbed mining"*²¹ .*"Each state leaves separate Guidelines & process of monitoring the sand mining"*²² And environmental clearance. . *"Central Government has the power to take measures for environmental protection"*²³;

From the dynamic view of economic growth, sand mining regulates the gains revenue to the government but the irregular billing leads to monetary loss and affects the economy. In the case analysis of *"E.D has alleged that the proceeds from illegal mining in Tamil Nadu over the last couple of years were R s. 4730 crores beside that the state government accounting is only Rs.36 Crore as revenue"*²⁴.

XII. IRREGULAR ACTIVITY OF SAND MINING

The demand for sand is so high in India too. This high eradication created sand mafias who gain the unaccountable monitories by influencing the locality for good wages and

¹⁹ Sustainable sand mining management guidelines, 2020

²⁰ National Mineral Act 1993

²¹ Geographical Survey of India

²² MMDR Act

²³ Sec 3 - EPA,1986

²⁴ E.D vs Sand Mining Contractors Tamil Nadu (2022)

transporting even when the administrative guidelines are restricted from the regional level. The experts & officials are blaming the sand mafias for this endangered cause. And the sad reality on the other end seems that the sand mining activity will get sloped only when there is no sand for extraction.

*"It has been reported the number of cases of death in illegal mining & murder by sand mafias"*²⁵. FIR lodged on dispute b/w the tragic group in illegal sand mining and due to competition attacked & murdered the appellant's brothers. The state needs to guard the officers & public who are monitoring the illegal activities. A police constable was murdered by the sand mafia near Tirunelveli for the arrest of his illegal sand activity. The situation is worse when the localities or villagers come up with a strong opposition voice against the illegal working of sand mafias. *"Attack on villagers in Narayanapet for*

*Protesting against sand mafias in 2019"*²⁶ *Approximately 418 people were killed in 16 months in min accidents involvement of min quarrels, dam flooding mines without warning sand pits,*²⁷*reported. "Illegal mining is penalized with imprisonment"*²⁸. *Illegal excavation of sand is being done at approximately an area of 10 Acres of land near Hasdeo River resulting in a course of revenue loss for the government.*²⁹, *without paying penalty to govt & sold in the open market. The environment protection overrides the economic benefits*³⁰.

Here, the question arises of whether the activity of illegal mining runs with the influence of state govt regardless of political parties & their Participation. Reports were showing the *"Involvement or facilitating illegal sand mining by political parties and belonging party members"*³¹ One among the scams is that a contract for mining has been permitted to tract extraction of sand from one location & the Contractors are extracting the sand from the location other than the permit granted is the common participation happening widely *"state authority to act transparent manner while awarding work & entering an agreement"*³².

²⁵ Prashant Singh Rajput vs S.of M.P BLAPL No. 5755 of 2020

²⁶ SANDRP, Telangana

²⁷ SANDRP, 2022 April

²⁸ Sec 21, MMDR Act

²⁹ Mohandas vs S.of Chattisgarh Crl No. 1485 of 2018

³⁰ S.of Gujarat vs Ambica Quarry works, (1987) 1 SCC 21

³¹ SANDRP,2020 - Andra Pradesh & Telegana

³² Chandra Sekar rao vs S. of Telegana, Crl No. 3437 of 2020

Due to many policy changes in sand mining to curb illegal activities, the legal miners remain uneasy about participating in mining activity while the illegal miners are protected by the political parties.

Illegal beach mining is also another worse case. Tamil Nadu Government banned Beach sand extraction from 2013-2017. From 2017, due to political intrigues and other pressures the permission for extraction has been granted and it is been transporting relaxation.

XIII. JUDICIARY PROACTIVE ROLE

To address the issue of illegal sand mining public interest litigation is a pivotal tool under Art 21 of the Constitution. *"A large number of writ petitions, styled as public interest litigation from almost all the Districts of the state, with an allegation of encroachment over the riverbed/public way, commonly allegation is that despite repeated complaints to revenue officers no step has taken"*.³³ Stated by the Kerala High Court.

Kerala High Court stated that *Article 21 of the constitution, is bound to impose any condition while granting the permit for sand mining"* ³⁴ Due to road accidents and traffic in the city, the High Court of Odisha ordered: *"Transportation of Sand between 7 am to 9 pm – for the safety of general public & School going"*. High Court Madras canceled all mining lease grand without auction by responding to PIL in 2001. In the Karnataka sand mining case 2016, the Supreme Court directed *"Central Government & State Government to implement strict monitoring for sand mining under art 39(b) & (c)"*.³⁵

In a Suo moto case on Tamil Nadu sand mining the high court directed to *"Introduce the CCTV monitoring of sand mining operation"* ³⁶which is also included in state guidelines by MOEF & CC. Supreme Court banned *"Mining in Goa due to environmental violation and lack of clearances*. The Court converted the public interest litigation into a suo moto case – *Held that nuanced & environmental safeguards before permitting coastal development activities"*.

³⁷ *In a Suo Moto case, a magistrate distributed* ³⁸*Police to file FIR against violation of illegal sand*

³³ Jagdish Prasad Meena vs S of Rajasthan S.B. Crl (Mis)No. 10185/2020

³⁴ Soman vs. Geologist W.P. (C) No. 32698 of 2019

³⁵ K.Hanumanthappa vs UOI W.P. No. 21089 of 2019 .

³⁶ Suomoto vs S of Tamil Nadu

³⁷ Suomoto vs S of Kerala, 2022 W.P. (C) No. 9400 of 2020

³⁸ Goa Foundation vs UOI (2014) 6 SCC 590

mining under IPC sections & MMDR Acts even without cognizance of offense by accused" ³⁹is which Supreme Court allowed the matter.

In *Deepak Kumar vs State of Haryana (2012)*, ⁴⁰Supreme Court directed –

- Environmental impact assessment (2006)
- Reinforced Art 21 – The right to life must be ensured for a clean & healthy environment.
- Govt to take serious control of sand mining.

Before the environment clearance, “Ensuring that mining does not deplete resource for future generation”⁴¹. Environment clearance is mandatory for minor minerals mining including sand mining for leases belonging to hectares" held by the Supreme Court. Courts are regulating the provisions in diverting the government to prevent illegal activities, mandatory re-forestation like plantation, strict enforcement of penalties, etc the protect environmental sustainability. Despite the regulatory measures for illegal mining by stringent enforcement, the need of community involvement is necessary.

XIV. TO ATTAIN CHANGE

The awareness of Environmental sustainability must be taught to the responsible society by introducing environmental sustainability as a part of the subject in professional ethics for students from various sectors. Especially the architects, and engineers to lower the usage of sand. Initiate Research & development to invent to new formula for replacing environmentally sustainable materials instead of over usage on natural resources as raw materials.

Eg: The usage of Manufacturing sand is replaced by natural virgin sand but still the need is not satisfied more as such.

³⁹ Jayant v. State of Madhya Pradesh, CrI No. 824 of 2021 .

⁴⁰ Deepak Kumar v. State of Haryana, (2012) 4 SCC 629

⁴¹ Goa Foundation vs UOI (2014) 6 SCC 590

XV. CONCLUSION

“We never know the worth of water until the well is dry” – Thomas Fuller the issue is core linked between government officials, politicians, and mafias, judicial intervention becomes imperative when the situation is unmanageable. Judicial interventions, particularly through Public Interest Litigations, have played a pivotal role in regulating sand mining and the landmark decision by the Supreme Court and High Courts have reinforced environmental safeguards under Article 21 (Right to Life), Article 48A (DPSP), and Article 51A(g) (Fundamental Duty). However, the slow pace of judicial proceedings and inconsistent implementation by authorities weaken their impact. The National Green Tribunal has made notable strides, but still illegal mining continues unabated. Ultimately, environmental sustainability cannot be achieved solely through legal provisions, it requires a collective societal effort, responsible governance, and ethical corporate practices.

The policy-making to address the research & development to encourage such sustainable replacement ideology to reduce the usage of natural resources and maintain a healthy environment in the future under Art 21 of the constitution of India. Encouraging the replaced technology for sustainability and investing in eco-friendly construction materials such as recycled concrete, industrial by-products, and bio-engineered sand. Initiation must start within themselves through mandatory Use of Sustainable Materials in Government infrastructure projects to use at least 50% alternative materials in construction.

XVI. REFERENCE

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