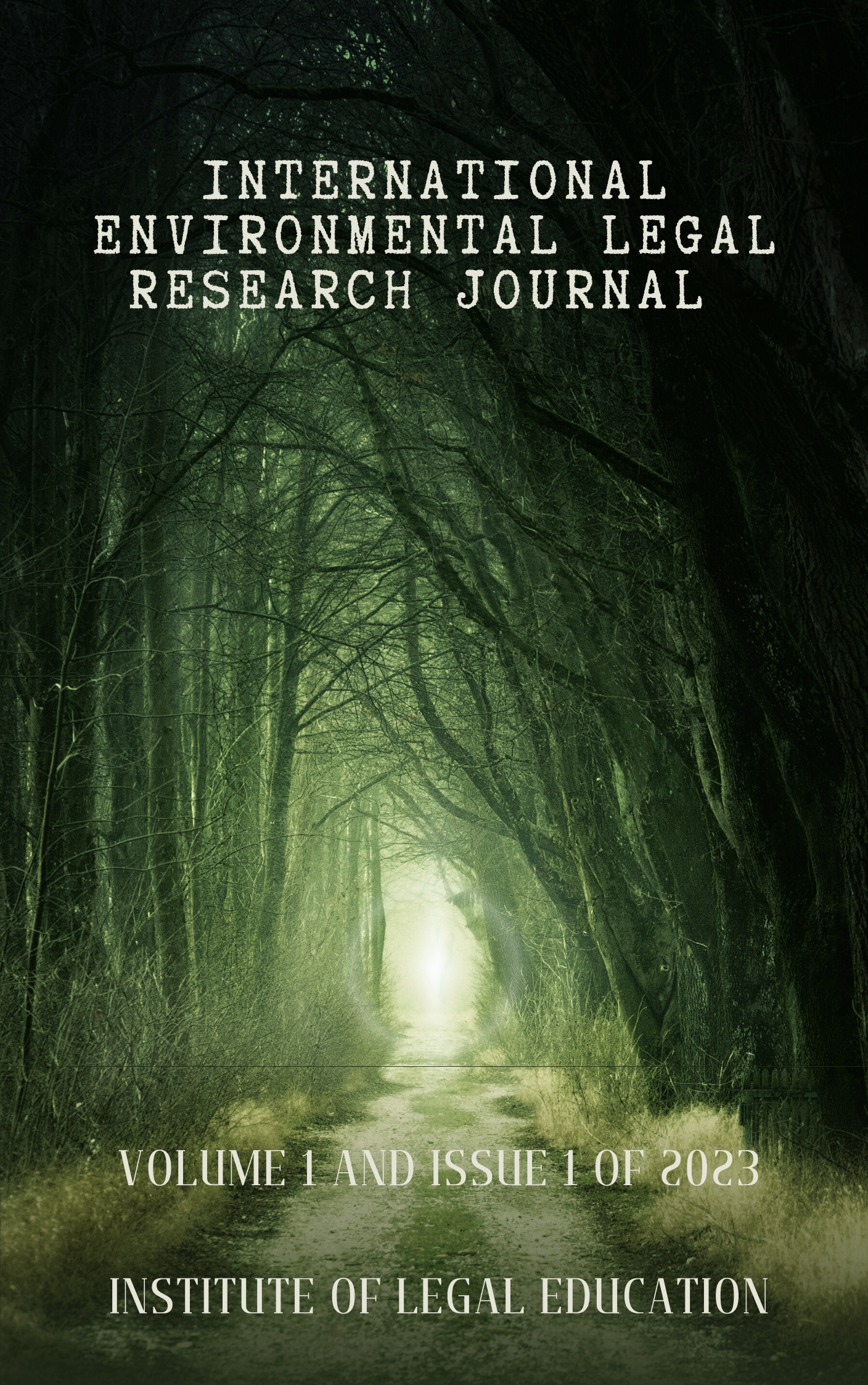

# INTERNATIONAL ENVIRONMENTAL LEGAL RESEARCH JOURNAL

VOLUME 1 AND ISSUE 1 OF 2023

INSTITUTE OF LEGAL EDUCATION

**International Environmental Legal Research Journal (Open Access Journal)**

**Journal's Home Page – https://ielrj.iledu.in/**

**Journal's Editorial Page - https://ielrj.iledu.in/editorial-board/**

**Volume 1 and Issue 1 (Access Full Issue on - https://ielrj.iledu.in/category/p-volume-1-and-issue-1-of-2023/)**

**Publisher**

Prasanna S,

Chairman of Institute of Legal Education (Established by I.L.E. Educational Trust)

No. 08, Arul Nagar, Seera Thoppu,

Maudhanda Kurichi, Srirangam,

Tiruchirappalli – 620102

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INTERNATIONAL ENVIRONMENTAL LEGAL RESEARCH JOURNAL

(P) Volume I and Issue I of 2023

ISBN - 978-81-960702-1-2

Published by

Institute of Legal Education

https://iledu.in

# LEGAL ISSUES AROUND MINING WITH RESPECT TO ENVIRONMENT

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**Best Citation -** Sneha Kataria, LEGAL ISSUES AROUND MINING WITH RESPECT TO ENVIRONMENT, INTERNATIONAL ENVIRONMENTAL LEGAL RESEARCH JOURNAL, 1 (1) of 2023, Pg. 95-102, ISBN (P) - 978-81-960702-1-2.

## ABSTRACT

The kind of mining in a given area is determined by the local geological conditions. The deterioration of natural resources has always been greatly facilitated by indiscriminate mining, and the resulting habitat damage greatly threatens biodiversity. Numerous mining organisations are discharging enormous amounts of untreated waste material in the mining locations. If sufficient care isn't taken with trash disposal, the ecosystem will irrevocably deteriorate. India's mining companies have a history of undermining the EIA's involvement in pre-operational, operational, and post-operational planning. This essay sheds light on the pressing concerns surrounding mining, its effects on the environment, and the legal framework that governs mining operations in India. It's also been emphasised how crucial it is to do adequate assessment studies in advance to learn about any possible negative effects of mining on the ecosystem and environment.

## INTRODUCTION

One of the most significant economic activity worldwide has been mining. The majority of our energy supplies have become accessible and usable because to mining. We have access to the raw minerals needed by civilization via mining. Large amounts of trash are produced during mining operations, and often these wastes are not properly disposed of, which may have negative effects on the earth's surface and constitute a serious danger to the ecosystem. The extraction and commercialization of natural resources has a significant negative impact on the environment. Even while mining only takes place in a small portion of a larger landmass, its effects on the environment are far more widespread and affect not just human health but also the whole flora and fauna of the that larger continent. Mineral discovery, extraction, processing, and eventually the arrival of the completed product on the market for consumer use all comprise the lengthy process of mining. The ecology is seriously threatened during the whole protracted mining operation. Mining operations hurt the ecosystem and ecology severely and irreparably because to improper planning and disregard for legislation.[258]

The indigenous flora and animals are under a great deal of strain from mining, especially in areas where forest land is divided for mining. Mining has a negative impact on the environment because it eliminates vegetation, greatly increases soil erosion, and changes microbial populations. However, despite the fact that mining has a negative influence on human health, its benefits to the country's economic success cannot be discounted. Additionally, mining operations have a detrimental effect on the ecology, especially when arable land and natural forests are concerned.[259] Therefore, a comprehensive strategy to mining operations is required, bearing in mind the issues with the surrounding ecology and habitats.[260] The article covers environmental effect management of mining, institutional and regulatory frameworks, as well as difficulties in carrying out

[258] Ahanger Faroz Ahmad, "Impact of Mining Activities on Various Environmental Attributes with Specific Reference to Health Impacts in Shatabdipuram, Gwalior, India", International Research Journal of Environment Sciences.

[259] Debasis Guha, "A case study on the effects of coal mining in the environment particularly in relation to Soil, Water and Air causing a Socio-economic Hazard in Asansol-Raniganj Area, India, International Research Journal of Social Sciences".

[260] Sribas Goswami, "Impact of Coal Mining on Environment: A Study of Raniganj and Jharia Coal Field in India, IAFOR Journal of Arts & Humanities 3(1)".

environmental impact assessments in India. The article also looks at local efforts in the mining industry over the last several years, as well as regional legislation, to see how successful they are in protecting local environments. It has also highlighted the problems that need to be addressed for India's environmental impact management to be more successful.

## ENVIRONMENTAL IMPACT ASSESSMENT

### Basics about Environmental Impact

The EIA process is a diverse and multistep procedure designed to ensure that environmental issues are taken into account in decisions concerning developments that may have an impact on the environment. Analyzing the environmental effects of a certain project or activity is known as an EIA. As a decision-making tool, EIA evaluates many project choices to ascertain which one effectively balances both costs and advantages of both economic and ecological concerns. The purpose of an environmental analysis is to inform the public and judgement about the potential project's environmental impacts. The Environmental Impact Assessment (EIA) document, a technical tool, detects, foresees, and assesses environmental effects as well as social, cultural, and health ramifications. The objective of an effective EIA process is to find alternatives and mitigation measures to decrease the environmental impact of a proposed project. The EIA process also serves a critical administrative function in the overall decision-making process by fostering transparency and engagement from the general public.

Both the project's positive and negative consequences are thoroughly analysed as part of the EIA, which also ensures that all of these effects are taken into account when the project is being developed. It assists in identifying possible environmental impacts associated with the project under examination, makes recommendations for how to decrease adverse effects, and predicts if there will be significant adverse effects that after abatement measures are taken.

Currently, legislation in many countries require local governments to complete an EIA review before approving construction permits. The educational role is equally important and maybe even a predecessor to the legal one in that it informs everyone—including users and involved professionals—about the potential environmental impacts of anything we do. An EIA is a method used to evaluate a project's potential effects on the environment, society, and economy before making a choice. It aims to discover techniques for minimising adverse impacts, adapt operations to the local ecology, predict environmental consequences early in the plan development and design process, and provide forecasts and options to decision-makers. Averted treatment/cleanup costs, the effects of laws and regulations, and shorter project implementation and design timelines are only a few of the economic and environmental benefits of EIA.

### EIA in India

EIA first occurred in India around 20 years ago. The Planning Commission originally requested that the Science and Technology Department look into the valley projects from such an environmental perspective in 1976–1977. This was later expanded to include those projects that needed the Public Investment Board's permission. There was no law governing environmental compliance certificate from the Central Govt before to 1994; it was purely an administrative choice. According to the Environmental (Protection) Act of 1986, the Government of India's "Union Ministry of Environment and Forests" (MoEF) published an EIA notification in 1994 that mandates environmental clearance (EC) before expanding or modernising any activity or starting new projects that are mentioned in Schedule 1 of the notification. Twelve changes have been made to the 1994 EIA notice since

INTERNATIONAL ENVIRONMENTAL LEGAL RESEARCH JOURNAL

(P) Volume I and Issue I of 2023

ISBN - 978-81-960702-1-2

Published by

Institute of Legal Education

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then. New EIA regulations was just announced by the MoEF in September 2006. In accordance with the notification, environmental approval is now required for a number of projects, including those involving mining, power plants, river valleys, infrastructure (roads, highways, ports, harbours, and airports), and industries like very small metal plating or foundry units.

from the appropriate State Environmental Impact Analysis Authorities or the MoEF, accordingly (SEIAAs). The permission would be issued by the MoEF in cases where state level entities have not been established. The notification also includes provisions for testing (determining whether the project or activity needs additional environmental studies before preparing an EIA), trying to check (decide the comprehensive and detailed Scope of Reference (TOR), trying to address all pertinent environmental concerns and questions before preparing an EIA Report), consultation process (ascertaining the concerns of affected parties), and project proposal evaluation. All new projects and activities mentioned in the Supplement to the 2006 notice, as well as their extension and modernisation, including any modification to the product mix, need EC. The MoEF under the EPA regulations notified the Ecological Risk Assessment (EIA) Notification 2006, which governs the granting of environmental approvals. An EIA analysis evaluates the effect a mining project will have on the environment. As a result, a project's environmental effect is minimised by creating an environmental management plan, which is then approved with limitations.[261]

Additionally, the federal government may specify mitigation strategies for the diversion of forest land in the event of mining ventures on forest land, such as the establishment and operation of compensatory afforestation. Since the EIA study must be done across three seasons and include public consultations, the EIA procedure for mining often takes a year, if not more. The appraisal committee then reviews the research. If there is forest land involved, authorization for its diversion must also be sought concurrently. Prior to the current strategy, which aims to promote business and growth, the process of obtaining environmental compliance certificate was known to take two years or more.

The environmental clearance procedure is exempted for non - fossil hydroelectric generators up to 15 MW, energy plants using non-hazardous municipal solid waste, and hydroelectric dams based on the waste heat recovery burners without utilising auxiliary fuel under the changes to the EIA Notification of December 1, 2009.[262]

**EIA PROCEDURE IN INDIA**

1. **Proposal for the Project**: Any proponent starting a significant development project must provide written notice to the Impact Assessment Agency (IAA) by submitting a project proposal. For the project proposal to get to the next level, screening, it must contain all pertinent information, including a land use map. The first step that marks the start of the EIA process is the presentation of a project proposal.
2. **Screening:** The screening process comes next. When determining if a project is necessary, it is looked at to determine whether environment clearance is needed in accordance with the law. At this point, the project's kind and need for authorization are determined. The proponent may speak with IAA if environment clearance is required.
3. **Scoping and Alternatives Considering:** The process of scoping involves describing the EIA's terms of reference.

[261] Karthy Nair, Environmental Regulations for Mining Activities, Lexology. https://www.lexology.com/library/detail.aspx?g=3e320b6e-6f33-4925-9419-d9de9aa17703

[262] Aijaj Ahmed Raj, "Environmental Impact Assessment of Mining in India: A Review of Legal and Institutional Mechanism, ENVIRONMENTAL IMPACT ASSESSMENT: PERCEPT & PRACTICE", 2019.

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The consultant completes it with the project proponent's approval and, if necessary, IAA direction. The Environment and Forestry Ministry highlights the major concerns that must be covered in the EIA studies in clear recommendations for various industries. Non-quantifiable consequences are to be evaluated on the basis of importance, which is often judged by socioeconomic factors, whereas measurable impacts are to be evaluated on the basis of size, prevalence, frequency, and duration.

4. **Baseline Data Gathering**: The environmental state of the specific place is the base line data. The main data particular to the location must be checked for the characteristics listed and, if necessary, supplemented with secondary data.
5. **Impact prediction and alternative evaluation**: Impact projection is a procedure where the environmental effects of a certain project are investigated and attempts are made to identify alternatives. Each project's potential alternatives are investigated, identified, and their environmental effects contrasted. The best option is then chosen after a comparative study of the possibilities. To direct the proponent toward environmental improvements, a mitigation plan is created for the chosen option and is reinforced by an environmental assessment (EMP).
6. **EIA Report**: The decision-maker should have clear information from an EIA report on the various environmental scenarios with, without, and with various alternatives. The proponent creates a thorough project report and presents facts in a clear and logical way. The IAA then checks to see whether the protocols have been followed in accordance with MoEF notifications.
7. **Public Hearing**: A planned development project must be disclosed to and subject to public consultation under the law. The State Pollution Boards will hold the public hearing before the projects are sent to MoEF for receiving environmental clearance. The Executive Summary of a EIA may be accessed by anybody who is likely to be impacted by the proposed project. Genuine locals, local organisations, environmental groups engaged in the region, and any other individual residing at the project locations of displacement may all be considered impacted parties. According to Schedule IV, they must be given the chance to provide oral or written proposals to the Pollution Control Board.
8. **Decision Making:** The project proponent (supported by a lawyer) and also the independent review authority confer before reaching a decision. A variety of measures are taken to reach the decision on authorization, including the examination of EIA / EMP.
9. **Monitoring The Clearance Conditions**: Both the construction and operating stages of a project need monitoring. Not only is this done to make sure that the agreements made are followed through on, but it is also done to see whether the forecasts stated inside this EIA reports come true or not. Remedial action should be made if the affects are greater than the levels anticipated. Monitoring also allows the regulating body to evaluate the accuracy of projections and the terms of the National Environment Plan's execution (EMP). The Project Proponent, IAA, and Emission Control Boards should keep an eye on how the rules are being followed. A report proving conformity with IAA must be submitted by the proponent every six months.[263]

[263] http://coe.mse.ac.in/EIAprocedure.asp

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## EIA & MINING LAWS

The Mines Act is linked with the specific reason of natural resource extraction and the most recent labour welfare guarantee. In the fundamental statute controlling mining, the EIA perspective has been blatantly ignored. In India, the national and state governments work together to manage the country's resources. The federating states own the proprietary title, and the centre is in charge of developing mines and other mineral resources. 1957 saw the passage of the "Mines and Minerals (Regulation and Development) Act (MMRDA)". The two primary pieces of law governing mining in India are the Mines Act of 1952 and the MMRDA of 1957. Together with such laws, the Forest Conservation Act of 1980 and the Environment Protection Act of 1986, which were passed to safeguard the environment and forests, also apply to mining. Due to the mining sectors' questionable track record of undermining social and ecological imperatives, pre- and post-EIA measures were particularly included into "the Mines and Mineral (Development and Regulation) Rule, 1987", in a later phase. The overarching National Mineral Policy (NMP) of the Indian government's which was initially described in 1993 and subsequently amended in 2002 and then again in 2008 following on the recommendations of the Huda Committee, serves as the foundation for the MMRDA and other laws. So as to guarantee that the expansion of mineral resources is in line with the objectives of the national policy, the MMDRA has been modified to lend legitimacy to the current "National Mineral Policy, 2008".[264] India's mining industry has a questionable history of undermining social and environmental goals. EIA is mentioned in passing in the fundamental statute controlling mines' safety measures.[265]

India's mining sector has always thrived, having the ability to benefit both its investors and the general population. The mining sector not only significantly contributes to the GDP of the nation, but it also supplies raw materials for the infrastructure and industrial sectors, which together account for a sizeable portion of the economy.[266] India's mining and quarrying index for mineral output was 1119 in Nov 2021, up 5% from the previous year. With a productivity of 679 lakh tonnes in November 2021, coal was regarded as the most significant mineral, followed by anthracite, oil and gas, hydrocarbon, and aluminium with a productivity of 33 lakh tonnes each. 2798,000,000 cu m. concurrently, 24 lakh tonnes and 1710,000 tonnes.[267]

The Mines and Minerals (Development and Regulation) Amendment Act.2021, which is a significant step toward updating the provisions of the Mines and Minerals (Development and Regulation) Act, 1957, is the most recent legal change to the mining sector in India.

Under the administrative and rulemaking authority of the central government, the EIA principles may be institutionalised. The Federal Govt may provide laws governing the guarding of shafts, pits, exits paths, and subsidence as well as the number and shifts or outlets that must be provided for the protection of those working in mines. The safety of the roadways and working areas in mines, along with the sitting, maintenance, extraction or lowering of mineral pillars or blocks, and the maintenance of enough baniers between mines, are guaranteed. The Central Government may also establish safeguards against danger resulting from explosions, the ignition of flammable gases or dust, or accumulations of moisture in mines, as well as for prohibiting, limiting, or

[264] Arpita Khanna, "Governance in Coal Mining: Issues and Challenges The Energy and Resources Institute, Analyzing Global, Regional and National Energy Governance Structures under the Program of Activities, Framework Agreement between the Norwegian Ministry of Foreign Affairs (MFA) and The Energy and Resources Institute (TERI)", 2013.

[265] M. Z.M. Nomani, "Environment Impact Assessment Laws, Satyam Law International, New Delhi, ISBN: 978-81-905852-5-5".

[266] Legal Issues in the mining sector, Your Legal Career Coach. https://www.yourlegalcareercoach.com/legal-issues-in-the-mining-sector-an-overview/

[267] India's mineral production is up 5% in 2021. The Economic Times. https://economictimes.indiatimes.com/industry/indl-goods/svs/metals-mining/indias-mineral- production-up-5-in-november-2021/articleshow/89020804.cms

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Published by

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controlling the excavation of minerals under conditions that are likely to cause the premature collapse of the workings, as well as to cause or aggravate the breakdown of the workings, as well as to result in or aggravate the irruption of ocean or ignitions in mines. The central government may specify the required cleanliness standard within its rule-making authority. There is now a separate chapter on mining and the environment in the Act's 1997 Amendment. The EIA policies and principles may be well-cared for by these measures.[268]

**EIA of Mining under Central Laws**

The Ministry of Mines, Ministry of Environment and Forest, Ministry of Coal, and the Department of Labor are primarily responsible for managing the mining industry. The Ministry of Mines (MoM) is in charge of creating mining policies and plans. The Coal Controller, several commissions, the Coal Mines Provident Fund Organizations, and the Commissioner of Payments Office are the organisations in charge of drafting laws to reduce and regulate environmental pollution and for planning under the administrative authority of MoC. Additionally, they support and organise environmental projects. The Central Pollutant Control Board (CPCB) and MoEF's regional offices support the MoEF in carrying out these duties. Similar to this, the Ministry of Labor's Director General of Mining Safety (DGMS) has the power to oversee the application of the law's requirements for workplace safety, health, and welfare. Even while some other ministries do not directly regulate the mining industry, they may nevertheless make choices that might affect how competitive the coal business is. These include the Ministries of the Railways (MoR), Surface Transportation (MoST), Finance (MoF), Power (MoP), Industry (MoI), and Steel (MoS), among others.

**EIA of Mining under State**

State agencies including those in charge of mining, forestry, environmental protection, and state pollution boards (SPCBs) oversee mining operations under their purview. The Division for Mining is in charge of collecting data, examining applications for mining titles, and making sure they comply with the rules. The Department of Forests also plays a significant role in prescribed compensatory a forestation and approving forest removals. Due to a lack of necessary capabilities for planning and implementing policies, the Department of the Environment mostly performs lower-level activities, which forces them to be limited to doing regular budgeting tasks for the state pollution control boards. (SPCBs). Due to their historical function, SPCBs are bigger organisations that were created to execute the Hydroponic System in the states. Their primary responsibilities include ensuring that the provisions of applicable Acts are implemented, setting effluent and emission standards, amending or repealing those standards, planning and executing programmes for the prevention, govern, or abatement of pollution, and providing state governments with related advice.

**EIA of Mining at Local Level**

Municipalities and Sarpanch are the local government entities that have a considerable impact on district-level environmental management and protection. They manage the concurrent use of resources like water and are responsible for soil protection, land improvement, and other duties. In addition to these, a few additional institutions carry out indirect regulatory duties, including the district collector or magistrate, the department in charge of collecting taxes and payments, and the department in charge of giving mining operation permits.[269]

[268] M. Z.M. Nomani, "Natural Resources Law and Policy, Uppal Publishing House, New Delhi, ISBN: 81-7658-024-4, 2004".

[269] Arpita Khanna, "Governance in Coal Mining: Issues and Challenges The Energy and Resources Institute, Analyzing Global, Regional and National Energy Governance Structures under the Program of Activities, Framework Agreement between the Norwegian Ministry of Foreign Affairs (MFA) and The Energy and Resources Institute (TERI)", 2013.

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## ISSUES AND CHALLENGES IN EIA OF MINING

Even with a regulatory and legal framework in place, miners in India has indeed been responsible for the ecology surrounding mining zones consistently becoming worse over time. The unfortunate thing is that there haven't been many strict measures taken against such infractions. The activity of the mining firms with respect to post - mining and restoration indicates their gross violations toward the laws and regulations as stipulated by the same. inadequate and inaccurate data as well as a disregard for scientific approach As the project supporters arrange for the EIA to be done, there is conflict of interest. fabrication, reiteration of outdated information, or omission of vital facts in favour of less significant ones. Congressional meetings are often ridiculous. Small places (less than 5 acres) are often exempt from the EIA requirement, which encourages unrestricted mining and exploitation. Assessments are discretely carried out in the summer when the terrain is drier & meaner. Waterways are thus often overlooked in EIAs. The EIA process has been reduced to little more than an administrative formality as a result of poor execution and inadequate monitoring.

The efficient application of environmental impact evaluation standards is hampered by the absence of a suitable system for coordination among multiple government entities and agencies. In addition to coordination concerns, it has been noted that certain jurisdictions overlap with one another, which again causes difficulty with the enforcement and application of rules. For instance, SPCBs and the regional offices of the MoEF have comparable functions and responsibilities in terms of monitoring and implementing numerous regulations pertaining to pollution, water, and land. The many facets of coal development are plainly unregulated and unmonitored by the regulatory organisations. Their inefficiency is mostly due to two issues: a lack of qualified labour and insufficient equipment availability. In conversations with different regulatory authorities, such as SPCBs, DGMS, State Transport Department, State Forest Department, etc., these considerations were brought up. Along with this, political influence has consistently been identified as one of the key reasons preventing regulatory organisations from responding adequately or at all to apparent errors. Given the significance of coal for the production of energy and the serious economic consequences of any interruptions in the supply of coal, gaps in implementations are sometimes willfully overlooked.[270]

## CONCLUSION AND SUGGESTIONS

The economic, social, and physical fabric of a much larger region next to the mining has a significant impact on mining. Although it is impossible to discount the economic benefits of mining operations, it is very risky to mine since it degrades the soil and causes ecological and socioeconomic issues. In addition to these, mine has always resulted in significant social costs such as eviction, loss of livelihood, and social marginalisation. Additionally, it is made worse by the prevalence of open-pit mining, which requires bigger land parcels and eventually leads to a greater loss of ecosystems and livelihoods. In addition to the individuals who lost their homes and property, those who live in the considerably greater region around the mining operations are also negatively impacted. Even if they are often not relocated, the villages around the projects must deal with worsening environmental dangers such water shortages, air, noise, and environmental pollution, health effects, etc. Therefore, it is crucial to carry out appropriate evaluations to look into how mining might potentially harm the flora and wildlife across a wider region before authorising the activity. It is best to identify the negative effects early on in the planning

[270] Debasis Guha, A case study on the effects of coal mining in the environment particularly in relation to Soil, Water and Air causing a Socio-economic Hazard in Asansol-Raniganj Area, India, International Research Journal of Social Sciences.

process so that precautions may be made to avoid them. One has to be conscious of the numerous actions that have an impact on the environment for this.

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