

# Techno-legal dimensions of sustainable mining in Meghalaya State of India

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## ABSTRACT

India has a distinction of extensive mining for development pursuits and undermining environmental and social imperatives. The legal policy for sustainable mining is governed by *Mines Act*, 1952, *The Mines and Minerals (Development and Regulation) Act*, 1957, *Mineral Concession Rule*, 1960, *Mineral Conservation and Development Rules*, 1988. The techno-legal dimension of mining under National Mineral Policy, 1993 and, National Mineral Policy of 2008 chart out a sustainable mining framework. The legislative history of mining is centripetal to the developer for extracting minerals and neglecting towards ecological sustainability. On the other hand, the workers face the appalling state of health and safety. The innocent population living in mining areas often suffers from adverse environmental impacts and polluted atmosphere. The paper takes a legal stance on precept and practices for developing sustainable mining in the Meghalaya State of India.

**Key words :** Sustainable mining, Mining laws, Mining policy, Mining catastrophe, Mine closure, Rat-Hole mining.

## Introduction

The legal policy for sustainable mining is governed by *Mines Act*, 1952. The *Mines and Minerals (Development and Regulation) Act*, 1957, *Mineral Concession Rule*, 1960; *Mineral Conservation and Development Rules*, 1988. These laws often become oblivious to ecological sustainability, social accountability, health, and safety. India has a record of extensive mining for development pursuits and undermining environmental and social imperatives (Das Gupta *et al.*, 2002). The *National Mineral Policy*, 1993 admits that the minerals and valuable natural resources need an integrated strategy of development for sustainable development (Nomani, 1996). The *National Mineral Policy*, 2008 adopted a sustainable mining framework to promote bio-diversity and ecological security (Nomani, 2016). On the ground of reality, the legislative history of mining has been tilted to-

wards the interest of mine developers, often neglecting workers' safety and social accountability (Nomani, 2005). The workers are constrained to work in an unsafe working environment, and the innocent population in the vicinity suffers from adverse environmental impacts and polluted atmosphere. The violation of mining, environmental, and labour laws in the mining industry often attracted condemnation by the courts (Nomani, 2000). The supreme courts, high courts, and national green tribunals have not only desired to comply the sustainable mining practices but also orders closure, rehabilitation, and compensation (Chauhan and Kharumnuid, 2016). Thus the feasibility of cost-benefit analysis and proactive developmental base of mining legislations have come under scrutiny for incorporating international practices for sustainable mining (Clark and Clark, (2005, June). India has a robust regulatory and institutional set up for the

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mining sector, but Meghalaya's rat-hole mining remains beyond the purview of these laws (Jariwala, 1995). The paper takes a legal stance on precept and practices of sustainable mining in unscientific rat-hole coal mining in the Meghalaya State of India.

## Materials and Methods

This techno-legal study is in the framework of environmental, ergonomic, and social conventions having a direct and incidental bearing on mineral development. The mining law in the Sustainable Development Framework (SDF) of the *International Council of Mining and Metals*, *International Union for the Conservation of Nature and Natural Resources Indigenous and Tribal Population Convention*, 1957, and *Safety and Health in Mines Convention*, 1995 need to be evolved. The national laws such as the *Constitution of India*, 1950; *Mines Act*, 1952, *Mines and Minerals (Development and Regulation) Act*, 1957, *Mineral Concession Rule*, 1960, *Environment Protection Act*, 1986; *Mineral Conservation and Development Rules*, 1988; *EIA Notification*, 2006 are analyzed on established canons of statutory interpretation. The study is under Brint and Williams' pragmatism in techno-legal context (Brint *et al.*, 1991).

## Results

Sustainable mining is a balance between social, economic, and environmental considerations and to be developed, operated, and closed in an environmentally and socially acceptable manner. Initially, the *Mines Act*, 1952, *Mines and Minerals (Development and Regulation) Act*, 1957, *Mineral Concession Rule*, 1960 were not in conformity of *Environment (Protection) Act*, 1986. The *Mineral Conservation and Development Rules*, 1988 has exhibited some sign of environmental consideration after the enactment of *Environment (Protection) Act*, 1986. Later on, the *EIA Notification*, 1994 and 2006, has augured this concept in the rudimentary form (Nomani, 2011).

**Mining & Sustainable Development:** The *National Mineral Policy*, 1993 admitted that the minerals and natural resources need an integrated strategy of development, including protection of forest environment and ecology, keeping in view the present and future needs of the country (Nomani and Rauf, 2019). The *National Mineral Policy*, 2008 has realized that mining has the potential to disturb the ecologi-

cal balance; therefore, a comprehensive strategy for sustainable development and social impact assessment are adopted. While adopting a multi stakeholding approach for indigenous communities, a framework for relief and rehabilitation also finds a mention in the policy in the context of *National Rehabilitation and Resettlement Policy*, 2007 (Ministry of Mines, 2008). Despite all these safeguards, the performance of the mining sector generally remains under severe flak on ergonomic principles.

**Sustainable Development Framework:** This leads us to draw an SDF for the mining sector to stand all environmental and social impact and apprehensions. The SDF modeled on the lines of the *International Council of Mining and Metals* and *International Union for the Conservation of Nature and Natural Resources* for the promotion of green clearances of mining projects (Suneja, 2012). The Indian ministry of mines under the caption of *Sustainable Development Framework (SDF) for Indian Mining* has spelled out an environmentally, technically and scientifically sound mining with a long-term view of development. The extraction should be not only financially viable; optimally driven uses of mineral resources but also sustainable in pre-mining and post-mining closure land uses. The policies of Ministry of Environment and Forests, Ministry of Tribal Affairs, Federation of Indian Mining Industries, Indian Bureau of Mines, State Mines Secretaries and Department of Mines and Geology require a cohesive approach.

**Precepts of Sustainable Mining:** The gradual incorporation of SDF envisages a set of principles which, by nature, inherently ergonomic and environmentally friendly. It provides safeguards to sustainable mining, scientifically proven, safe mine closure, and post-closure initiatives for the incorporation of SDF in the entire production cycle. The below chart gives a vivid account as to these principles will eventually lead to SDF in its ambit and scope. Thus the incorporation of environmental and social sensitivities in decision making of a grant of mines leases will develop strategic assessment in key mining regions. The sound management systems for impacts at the mine level will address land resettlement and social effects. The community engagement, benefit-sharing, and their contribution to socio-economic development need a coordinated strategy (Nomani, 2010).

## Discussion

It is under this backdrop that the present study is devoted to the critical appraisal of sustainable development of the coal mining sector of the Meghalaya state. Meghalaya is a small state in a hilly strip in north-eastern India. The Meghalaya, subtropical forests, eco-region, encompasses the province; its montane forests are distinct from the lowland tropical forests to the north and south. The forests of Meghalaya are notable for their biodiversity of mammals, birds, and plants. Meghalaya currently has seven districts. These are East Garo Hills, East Khasi Hills, Jaintia Hills, Ribhoi, South Garo Hills, West Garo Hills, and the West Khasi Hills (Directorate of Mineral Resources, 1985).

**Coal mining in Meghalaya:** The state has a coal reserve of 576.48 million tones. The Coal in Khasi Hills, Jaintia Hills and Garo Hills districts are centers of production of upgraded coal and primarily comes from these areas from private, non-captive and unorganized sector. The mines are operated mostly by the local tribal in their private lands (Guha Roy, 1992). The following Table and following chart below gives information about various coal resources of West Garo Hills, East Khasi Hills, West Khasi Hills and Jaintia Hills districts of the State. Meghalaya enjoys exemption from *Mines Act, 1952*, *The Mines and Minerals (Development and Regulation) Act, 1957*, *Mineral Concession Rule, 1960*, *Mineral Conservation and Development Rules, 1988* in the coal mining sector due special status conferred under Article 244(2) and Sixth Schedule of *Constitution of India, 1950* (Nomani, 2000). Thus constitutionally, the Autonomous District Councils (DCs) of Khasi Hills District, Jaintia Hills District, and the Garo Hills District have powers to make laws concerning the extraction of minerals. Therefore basic framework of mining laws are observed more in the breach than compliance.

**Legal Intervention against Coal Mining:** Given a constitutional exemption, Meghalaya embarked on traditional mining practices popularly known as the artisanal rat-hole coal mining (Singh, 2012). The drilling started as a subsistence livelihood as a private property right model but soon transformed into an industry. Environmental degradation and loss of biological and cultural diversity led All Dimasa Students Union and the Dima Hazao Dis-

trict Committee for interventions of the Supreme Court. The National Green Tribunal (NGT) put an interim ban on rat-hole coal mining on 17<sup>th</sup> April 2014 (Online, 2014). The mining community in Meghalaya remains concerned over banning order because the government does not have a policy in place to regulate mining. The rat-hole mining is a labor-intensive industry; hence the banning order created unemployment and livelihood opportunities. Therefore the Supreme Court, on July 3, 2019, directed the state authorities to hand over illegally extracted coal to Coal India Limited, which would auction it and deposit the funds with the state government. It also imposed a fine of Rs 100 crore for breach of mining laws and sustainable mining practices (Online, 2017).

**Mine Closure & Sustainability:** The closure of rat-hole coal mining by NGT is a welcome step towards sustainable mining, but it has not undergone post-closure environmental impact and assessment of strategic challenges in terms of sustainability (Warhurst and Noronha, 1999). There is no doubt that the objectives of mine closure are public health and safety, land sustainability, and minimization of adverse socio-economic impacts (Trivedi, *et al.*, 2011). The closure options in the long term stability and cost factors in respect of engineering and environmental terms must follow EIA norms. A mine closure should encompass the time horizon and costs, landform and surface rehabilitation, stabilization and detoxification of dumps and impoundments, cost-benefit analysis, and environmental management plan (Nomani *et al.*, 2019). At the international level, the Equator Principles try to fill the regulatory gap by mandatory assessment of social and environmental risk by the financial institutions, most notably International Finance Corporation (World Bank & IFC, 2002). At the national level, the 'Guidelines for Preparation of Mine Closure Plan' (MCP) has prepared by the Ministry of Coal, Government of India. The Guidelines notified on 27<sup>th</sup> August 2009 under *Mineral Conservation and Development Rules, 1988* having two components viz; progressive or concurrent MCP and Final MCP for sustainable management of mine closure (CPAM, 2012).

## Conclusion

The sustainable mining in Meghalaya is passing

through testing time in terms of legislative compliance and policy absorption (Ministry of Mines, 2011b). Seen in the backdrop, one finds Meghalaya's legal policy for mining has skewed approaches and on the throes of transition. While allowing mining to resume, the Supreme Court added that miners must adhere to central mining laws and that all mining must take place legally. It mandated miners to obtain a mining lease and to get environmental clearance from the Meghalaya State Pollution Control Board. The apex court also recognized the miners' right to private ownership of their land and mineral resources in the tribal state. Now there is a shift in policy orientation as the state formulated *Mines and Mineral Policy, 2012* for carrying out scientific mining (Meghalaya MM Policy, 2012). The mining coalition has also expressed its willingness to comply with scientific mining laws and policies (Nomani, 2019). It was only recently that the Meghalaya government wants regulation of rat-hole coal mining on community-owned land (Online, 2019). The existing legal framework and the amendments in the recent past suggest that the government is giving serious thought to the environmental, social, and economic dimensions of coal mining. However, the sustainable mining precepts will take a long way to reflect in practices of rat-hole mining of Meghalaya to propel economic growth and sustainable development.

### Scope for Further Studies

India has a robust regulatory and institutional set up for the mining sector but belatedly incorporated sustainable mining principles and practices. Meghalaya's rat-hole mining is a living indicator of not only of unscientific mining but free from the applicability of mining laws. So long the state enjoys constitutional status, the president should gazette for the immediate implementation of national mining and safety and labour laws. The existing legal framework needs a thorough amendment to incorporate environmental and sustainable mining practices in artisanal and rat hole mining of Meghalaya.

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