

Regulations for Management of Mining Environment in India

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The Mining activity exerts pressure on environment and various natural resources at all different stages of operation. The adverse impacts of mining activities include deforestation, pollution of air, water and land/soil, degradation of landscape etc. Any deterioration in the physical, chemical, and biological quality of the environment affects human health and flora and fauna and agricultural activities. Some of the negative impacts on the landscape and the human environment can effectively be permanent. The magnitude and significance of impact on environment may vary from mineral to mineral and also on the potential of the surrounding environment to absorb the negative effects of mining, geographical disposition of mineral deposits and size of mining operations.

The Mines and Minerals (Development and Regulation Act, 1957, ('MMDR') and the Mines Act, 1952, together with various amendments, rules and regulations framed under them, constitute the basic laws governing the mining sector in India. The name of Mines and Minerals (Regulation and Development) Act, 1957 has now been changed to Mines and Minerals (Development and Regulation) Act, 1957 in order to emphasize that the stress is on development rather than on regulation. The Mining and Minerals (Regulation and Development) Act, 1957 lays down the legal framework for the regulation of mines and development of all minerals other than petroleum and natural gas.

The relevant rules in force under the MMDR Act, are the Mineral Concession Rules, 1960, and the Mineral Conservation and Development Rules, 1988. The health and safety of the workers is governed by the Mines Rules, 1955 created under the jurisdiction of the Mines Act, 1952. The Mineral Concession Rules, 1960 outline the procedures and conditions for obtaining a Prospecting Licence or Mining Lease. The Mineral Conservation and Development Rules, 1988 lays down guidelines for ensuring mining on a scientific basis, while at the same time, conserving the environment. The provisions of Mineral Concession Rules and Mineral Conservation and Development Rules are, however, not applicable to coal, atomic minerals and minor minerals. The minor minerals are separately notified and come under the purview of the State Governments. The State Governments have for this purpose formulated the Minor Mineral Concession Rules.

Regulatory Framework for Management of Environmental Problems of Mining Sector

The environmental problems of mining sector are primarily managed by five Acts and their associated Rules, Notifications, etc. which have been framed for mitigation of pollution and general environmental problems of the country. The common objectives of these regulations include arresting further damage to the environment and ecosystem resulting from mining; taking appropriate measures for conservation of the environment; reclamation and eco-restoration of mining degraded landscape and environment; creating authorities to administer the policy; and contents of the legislation and providing framework for penalties and prosecution to violators. The five Acts are listed below:

1. The Water (Prevention and Control of Pollution) Act, 1974 and its amendments

The purpose of this act is to provide for the prevention and control of water pollution and the maintenance or restoring wholesomeness of water for the establishment. This is the Act

that established the Central and State Pollution Control Boards and also the authority and power to constitute as many committees as they feel essential to carry out specific functions for them. The Act specifically prohibits discharge pollutants into water bodies. In general, this Act regulates all types of intake and/or discharge of liquid or water either from a running stream or well to ensure its water quality.

2. The Water (Prevention and Control of Pollution) Cess Act 1977

This Act provides framework for collection of levy and Cess on water consumed by industries including mining industry. The Cess collected is to be used by CPCB and PCBs to prevent and control water pollution.

3. The Air (Prevention and Control of Pollution) Act 1981

This Act was passed for the "prevention, control and abatement of air pollution." This law defined an air pollutant as "any solid, liquid or gaseous substance present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment." In this Act, power has been given to the state governments and their respective State Pollution Control Boards for control of air pollution.

4. The Environment (Protection) Act 1986

The Act was enacted to "provide for the protection and improvement of environment and for matters connected therewith." this act defined environment which includes "water, air, and land and the inter-relationship which exists among and between "water, air and land, and human beings, other living creatures, plants, micro-organisms and property".

This Act enlists general powers of the central government which included "all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and

abating environmental pollution." The Act also included "the standards of quality of air, water, or soil for various areas and purposes, the maximum allowable limits of concentration of various environmental pollutants. The Act also deals with prevention, control and abatement of environmental pollution by specifying the restrictions allowed to the discharge or emit any environmental pollutant in excess of such standards as may be prescribed. It is under this Act that makes it mandatory for the specified 30 categories of industries including mining which have investment beyond certain threshold that an Environmental Impact Assessment (EIA) is required.

A number of notifications have been issued under the Environment (Protection) Act. Some of the important notifications/amendments, which affect mining projects, are as follows:

- (i) Restriction on mining in certain identified ecologically sensitive/fragile areas (e.g. in Wild life Sanctuaries, National Parks, and adjoining National Monuments, areas of cultural heritage, ecologically fragile areas, areas rich in biological diversity, gene pool, etc).
- (ii) Environmental Impact Assessment (EIA) for development projects (1994).
- (iii) Amendment to the EIA notification making Public Hearing mandatory for development projects (1997).
- (iv) National ambient air quality standards for industrial, residential, rural and sensitive areas.
- (v) General standards for discharge of effluents from mining and mineral processing activities.
- (vi) Ambient air quality standards in respect of noise for industrial, commercial, residential areas and silence zones.

5. The Public Liability Insurance Act 1991

The purpose of this Act is "to provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while working". For the first time, this Act holds the owner liable for death or

injury to any person, damage to any property resulting from an accident. The "claimant shall not be required to plead and establish that death, injury or damage in respect of which the claim has been made was due to any wrongful act, neglect or default of any person. Only Workman has been excluded from this Act as he is covered under the Workmen's Compensation Act, 1923 (8 of 1923). The Owner is required to take out insurance policies so that he can give relief under sub-section (1) of section 3. Under this Act, Environment Relief Fund has been established. This fund may be used in case of any emergency.

These environment specific laws must be read in conjunction with the Mineral Concession Rules 1960 (MCR) which stipulate that the "mining plan" shall incorporate a plan of the area showing the water courses, the limits of reserved and other forest areas, the density of trees, an assessment of impact of mining activity on forest land surface and environment including air and water pollution, details of scheme of restoration of the area by afforestation, land reclamation, the use of pollution control devices and such measures as may be directed by the Central or the State Government from time to time. All these requirements are incorporated in an Environmental Management Plan (EMP), which forms an integral part of a mining plan.

Other Regulatory Provisions

Other regulatory frameworks which govern the management of mining environment, directly or indirectly are mentioned below:

The Indian Forest Act, 1927

The Indian Forest Act, 1927 enacted during the British rule, aimed "to consolidate the law relating to forests, the transit of forest produce and the duty leviable on timber and other forest produce". This Act deals with reserved forests, protected forests, village forest and control over non-government forests. It gives a comprehensive definition of 'forest produce'. Section

26 (1) lists acts prohibited in reserved forests, which includes clearing or breaking any land for any purpose.

After independence, a Forest Policy was formulated in 1952, which aimed a forest coverage of one third of the total land area of the country. In spite of the policy, extensive diversion of forest land for non-forest purposes took place over the years. Based on available information, the total forest area diverted for non-forestry purposes between 1950 and 1980 was 4.5 million ha. i.e. at an annual rate of 0.15 million ha. In order to regulate the unabated diversion, the Constitution was amended in 1976 (Forty Second Amendment) which inscribed "Forests" under a new item 17A in the Concurrent list of the Seventh Schedule to the constitution. Subsequently the Forest (Conservation) Act was enacted in 1980 as a long felt measure to protect and conserve forests. These measures resulted in considerable reduction of diversion of forest area for non-forestry purposes.

Forest (Conservation) Act 1980 and Rules 1981

The Forest (Conservation) Act 1980 (FCA) provides an adequate structure for the preservation of the forest resources of India. The FCA seeks to restrict the powers of State Governments in respect of dereservation of forests and use of forest lands for non-forest purposes. To this end, it has created an Advisory Committee in the Ministry of Environment and Forests (MoEF), Government of India, to oversee the implementation of the statute.

Mining including underground mining is a non-forestry activity. Therefore, prior approval of the Central Government is essential before a mining lease is granted in any forest area. The FCA applies not only to the surface area, which is used in mining but also the entire underground mining area beneath the forest.

In addition, no mining shall be ordinarily undertaken in identified ecologically fragile and biologically rich areas such as National Parks and Wildlife Sanctuaries. All proposals involving forest land more than 20 ha. in plains and more than 5 ha in hills must be accompanied by a cost-benefit analysis to

determine whether diversion of the forest land for non-forestry use is in the overall public interest. The parameters according to which the cost aspect will be determined and the parameters for assessing the benefits accruing are given in MoEF document.

If the project involves displacement of people, a detailed rehabilitation plan shall be submitted along with the proposal. The SC and ST population should be separately considered and a plan for their rehabilitation should be in cognizance with their socio-economic, cultural lifestyle. *Compensatory afforestation* Compensatory afforestation is one of the most important conditions stipulated by the Central Government while approving proposals of dereservation or diversion of forest land for non-forest uses. Compensatory afforestation must be done over equivalent area of non-forest land. This land should be close to reserved forest or protected forest to enable the forest department to effectively manage the newly planted area. The identified non-forest land has to be transferred to the ownership of the State Forest department and declared as Protected Forests so that the plantation raised can be maintained permanently.

The transfer must take place prior to the commencement of the project.

Wildlife Protection Act 1972 and amendments

The Act as amended up to 1991 prescribes protection of animals and regulates their improvement. The Act is very rigid and is supported by various Supreme Court decisions. It is difficult to obtain diversion of forest rich in wildlife, or coming in the pathway of wild animals etc. In case of sanctuaries and National Park, diversion is not generally allowed unless the project is of national importance and no other alternative is available. In such cases the no objection has to be initially accorded by the Indian Board of Wildlife and the State Legislature before consideration by MoEF for diversion.

The National Forest Policy 1988

The National Forest Policy 1988 has given greater emphasis to the conservation and ecological aspects of forest, wildlife, and environment. The salient features of the new Forest Policy are:

- (i) Maintenance of environmental stability through preservation and restoration of ecological balance.
- (ii) Conservation of the natural heritage of the country by preserving the remaining natural forests and protecting the vast genetic resources for the benefit of posterity.
- (iii) Meeting the basic needs of the people, especially fuel wood, fodder and small timber for the rural and the tribal people.
- (iv) Maintaining the intrinsic relationship between forests and the tribal and other poor people living in and around forests by protecting their customary rights and concession on the forests.

Conclusion

In spite of a very elaborate legislation relating to mining activity in the country, it is felt that there exist a number of gaps. These gaps need to be bridged. Certain amendments are on the anvil both at the level of the Central Government and also various State Governments, which would certainly help in bridging the existing gaps.