

Illegal Coal Mining in India

Why in news?

Recently, three workers died of asphyxiation inside an illegal coal mine in Gujarat's Surendranagar district.

How coal mining is regulated in India?

Coal is a sedimentary deposit composed predominantly of carbon that is readily combustible. Anthracite, Bituminous, Lignite and Peat are different types of coal.

- **Coal mining** - Extracting coal from open cast mines or underground mines.
- **NCDC** - National Coal Development Corporation (NCDC), was **formed in 1956** for *exploring new coalfields* & expediting development of new coal mines.
- **MMDR Act 1957** - Mines and Minerals (Development and Regulation) Act *regulates mining sector except minor minerals and atomic minerals* in India.
- **Nationalisation of coal mines** - It was done in two phases
 - In 1971-72 - Coking coal mines
 - In 1973 - Non-coking coal mines
- **Coal Mines (Nationalisation) Act, 1973** - With this act, all coal mines were nationalized.
- It determines eligibility for coal mining in India.
 - *1993 amendment* enabled the *entry of the private sector* to mine coal for captive use.

Why is illegal coal mining rampant in India?

Illegal mining is defined under Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 as "any exploration or or mining operation undertaken in any area without holding a mineral license." It is often carried out using techniques like surface mining and rat-hole mining without safety equipment.

- **Insufficient legal supply of coal** - Deficit in meeting high energy demand by legal supply of coal, illegal mining is carried out.

Coal is the most abundant fossil fuel in India, accounting for 55% of the country's energy needs.

- **Economic deprivation** - Poverty & Unemployment in areas near to coal mining regions contributes to illegal mining in these areas.
- **Profitable business** - *Minimal operational costs* makes illegal mining lucrative for perpetrators.
- **Prevalence of unused mines** - It is carried out in abandoned mines in remote or isolated places.
- It is also done in mines which are not scientifically or economically feasible for coal extraction.
- **Weak mining regulations** - Inadequate monitoring and lack of resources leads to weaker enforcement.

What are the impacts?

- **Health issues** - Acute poisoning or long-term chronic medical conditions due to toxic gas release such as carbon monoxide, lead and arsenic poisoning.
- **Fatalities** - Higher number of deaths due to lack of safety equipment and protocols.
- **Structural damages** - It can cause *cave-ins, landslides*, and even collapse of the entire mines.
- **Law and Order issues** - It leads to *illegal activities, growth of mafias* and law and order problem in the regions.
- **Financial issues** - *Revenue loss* to State and Central government due to illegal sale of coal.

What are the measures taken?

- **Regulation** - The *Mineral Conservation and Development Rules, (MCDR) 2017* mandates the registration of mining activities with State Government(s) and Indian Bureau of Mines.
- **Surveillance** - Installation of *check-posts* at vulnerable points.
- A *task force* has been constituted at different level (block, sub-divisional, district, state) in some subsidiaries of Coal India Limited (CIL) to monitor different aspects of illegal mining.
 - **MSS** - Mining Surveillance System, a *satellite-based* monitoring system.
 - **CMSMS** - Coal Mine Surveillance and Management System, a *web app* for reporting unauthorized coal mining activities
 - **Khanan Prahari** - A *mobile app* for reporting illegal mining
- **Tracking** - State Governments to submit *quarterly reports* of illegal mining to Indian Bureau of Mines as per MMDR Act.
- **Preventing access** - *Concrete walls* have been constructed on the mouth of the openings of the underground abandoned mines to prevent access and illegal activities in these areas.
- **Capacity building** - Training of existing security/CISF personnel, refresher training and basic training of new recruits in security discipline for strengthening the security setup.
- **Punishment for non-compliance** - MMDR Act provides for punishing illegal mining activities with the
 - **Penalty** - Rs. 5 Lakh per hectares

- **Imprisonment** - 5 years
- **Quick disposal of cases** - Special courts are formed in respective states for providing speedy trial of the offences.

What are the challenges in curbing illegal coal mining in India?

- High demand for coal as a fuel makes illegal mining rampant.
- Lack of coordination between Union and State governments.
- Complex legal framework in mining governance leads to bureaucratic hurdles and inefficiency in governance.
- Nexus among criminals, police, and politicians systemizes illegal mining in the region and it makes it difficult to curb.

What lies ahead?

- Adopting *alternatives to coal* in energy intensive industries.
- Promoting *private sector participation* to increase coal production.
- Increasing the *import* of coal to meet the rising the demands.
- Filling the unused mines with water or soil to prevent illegal mining or can be used for facilitating carbon capture and storage.
- Educating people about the hazards of illegal mining.
- Creating *alternative livelihood* for people in the coal mining regions.
- Monitoring the potential illegal mining regions with drones.

References

1. [The Hindu| India's illegal coal mining problem](#)
2. [Mines.Gov| Regulating Illegal Coal Mining in India](#)
3. [PIB| Measures to Control Illegal Mining](#)

