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# DAILY CURRENT AFFAIRS DATED 07.02.2026

## GS Paper II: Current Affairs

## 1. Illegal Rat-Hole Mining in India: A Governance, Environmental and Livelihood Challenge

### a. Introduction

Illegal rat-hole mining in India—most visibly in Meghalaya—shows how an "illegal activity" can survive for decades when it is tied to livelihoods, local political economy, and weak enforcement capacity. Even strong judicial interventions have not fully eliminated it because the practice is embedded in local land ownership systems, thin coal seams that favour small extraction, and a governance structure shaped by Sixth Schedule autonomy. Therefore, the issue must be understood as a combined environment–livelihood–governance problem, not only as a law-and-order violation.

### b. Understanding Rat-Hole Mining

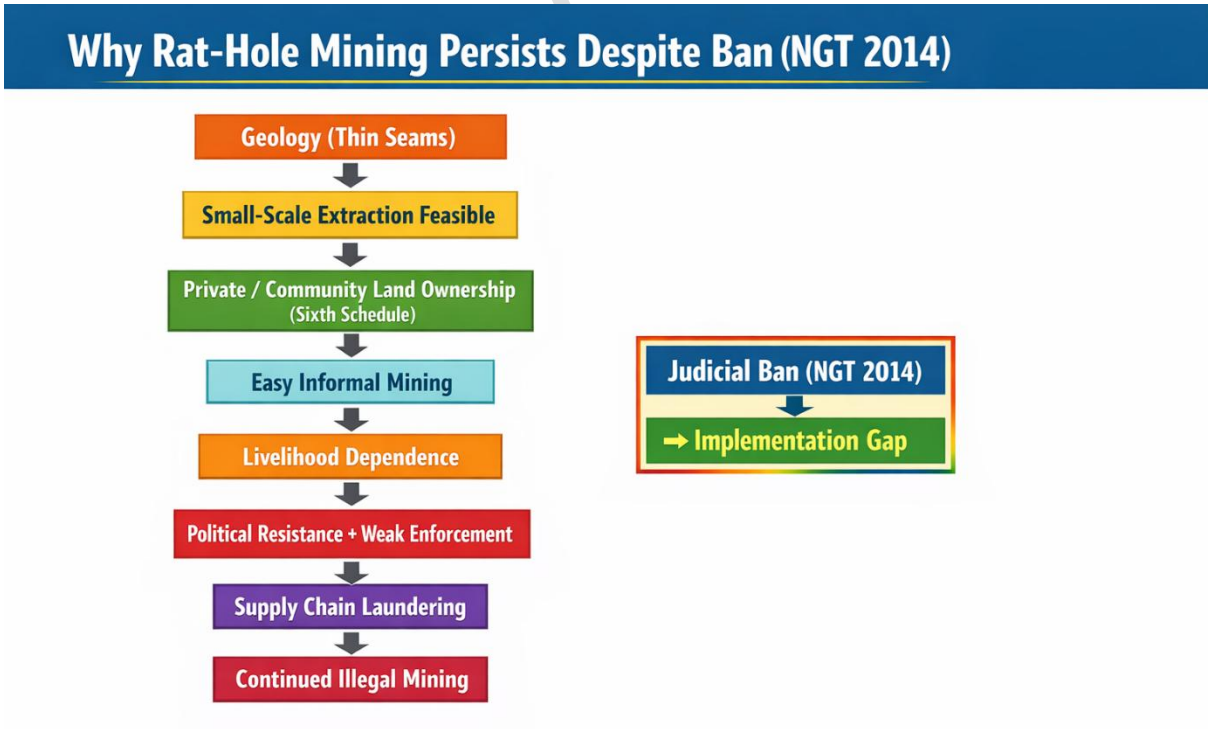
#### i. What it is

Rat-hole mining is a crude coal extraction method where very narrow tunnels—often only 3–4 feet high—are dug into hillsides. Workers crawl inside, manually cut coal, and carry it out in small loads.

#### ii. Why it emerged in Meghalaya

- Geology: Coal occurs in thin seams, making mechanised mining difficult and expensive.
- Land ownership patterns: Much land is privately or community owned, encouraging small landholders to extract coal independently.
- Quick returns: It provides fast cash in a region with limited alternative employment.

It may be profitable for landholders in the short run, but it is extremely unsafe for workers and highly destructive for the environment.




### c. Legal and Constitutional Background

**i. Key law**
Mining is regulated primarily under the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act), which governs licensing, extraction, and compliance.

**ii. Judicial intervention**
The National Green Tribunal (NGT) banned rat-hole mining in Meghalaya in 2014, citing severe environmental damage and unacceptable safety risks.

**iii. Constitutional Foundations**

- **Article 21:** Right to life includes the right to a clean environment and safe working conditions through judicial interpretation.
- **Article 48A:** State duty to protect and improve the environment.
- **Article 39(e):** State must protect workers' health and strength against exploitation and unsafe conditions.

### d. The Sixth Schedule Complication

Meghalaya is under the Sixth Schedule, which grants substantial autonomy to tribal areas through Autonomous District Councils (ADCs). Land and resources are often community-controlled rather than state-controlled.

- Creates institutional ambiguity over who controls and regulates land-based resource extraction.
- Limits direct state intervention, especially when extraction is framed as a "private/community land activity."
- Diffuses accountability, making enforcement politically and administratively harder.

### e. Why Illegal Mining Persists

**i. Economic dependence and livelihood compulsion**

- Mining offers immediate income in areas with few alternatives.
- A ban without transition support can push the activity underground rather than stop it.

**ii. Fragmented land ownership and diffused responsibility**

- Community/private ownership makes it harder for state agencies to regulate "at the source."
- Political resistance increases when enforcement is seen as interference in customary land rights.

**iii. Weak enforcement and administrative limitations**

- Remote terrain, limited manpower and inadequate monitoring infrastructure.
- Possibility of local collusion and selective enforcement.
- Crackdowns tend to be episodic, not sustained.

**iv. Informal labour conditions**

- Workers are unregistered and outside formal labour protections.
- Accidents are underreported; compensation is uncertain.
- Exploitation is easier in an informal system, including reports of child labour in some contexts.

**v. Supply chain laundering**

- Illegal coal gets mixed with legally auctioned or transported coal.
- Once it enters formal transport channels, tracing the source becomes difficult, lowering risk for operators.

## f. Environmental and Social Consequences

### i. Environmental Impacts

**Deforestation and ecosystem destruction**
Mining cuts into hillsides, damages forests, and breaks fragile hill ecosystems.

**Acid mine drainage (most damaging effect)**
Acid mine drainage occurs when sulphur-bearing minerals react with air and water, producing acidic runoff. This contaminates rivers and groundwater, harming biodiversity and reducing agricultural productivity.

**Land degradation and disaster vulnerability**

- Soil destabilisation increases erosion.
- Disturbed slopes become more prone to landslides in heavy rainfall.

### ii. Human Security Impacts

**High accident risk**

- Tunnels collapse easily due to weak structural support.
- Flooding and toxic gases can trap and kill workers.

**No safety net**

- No formal contracts → no insurance → weak compensation.
- Lack of rescue preparedness and emergency standards.

### iii. Governance Impacts

**Rule of law deficit**
Continued mining despite bans shows a gap between court orders and implementation capacity.

**Institutional credibility loss**

- Patronage networks and lack of transparency encourage impunity.
- State legitimacy erodes when illegality becomes "normal."

## g. Broader Governance Lessons

**i. Economic lesson**
Over-reliance on a single extractive livelihood in fragile regions creates a lock-in effect: bans without alternatives tend to fail.

**ii. Administrative lesson**
Weak monitoring systems, difficult terrain, and capacity gaps make enforcement inconsistent.

**iii. Social lesson**
Community dependence on coal normalises risk and illegality, especially when benefits and rents are locally distributed.

**iv. Environmental lesson**
Short-term extraction without sustainability standards pushes the region toward irreversible ecological decline and higher disaster risk.

## h. Way Forward

### i. Technology-based monitoring

- GPS tracking of coal vehicles and route validation.
- Digital permits, e-records, and real-time checkpoints.
- Satellite/drone surveillance to detect active mining zones in remote terrain.

**ii. Credible deterrence**

- Confiscation of illegally mined coal and equipment.
- Blacklisting of repeat offenders and intermediaries.
- Consistent prosecution (not periodic drives) to raise the cost of non-compliance.

**iii. Community-centred regulation under Sixth Schedule reality**

- Local monitoring committees with community leaders to improve legitimacy.
- Incentivised reporting and social accountability to reduce local protection of illegal operations.

**iv. Alternative livelihoods and economic diversification**

- Horticulture, eco-tourism, MSMEs, skill development.
- Credit support, market linkages and infrastructure so alternatives actually become viable.

**v. Administrative reforms**

- Rotation of officials in mining-prone districts to reduce entrenched networks.
- Independent audits of permits and transport records.
- Transparent digital recordkeeping to reduce discretionary manipulation.

### i. Ethical and Sustainable Development Perspective

Rat-hole mining represents a moral and governance dilemma: livelihood insecurity pushes people into dangerous work, while ecological damage harms communities that depend on land and water. This links directly to:

- **SDG 8:** decent work and safe labour conditions
- **SDG 12:** responsible production and consumption
- **SDG 16:** strong institutions and rule of law

**Conclusion**
Illegal rat-hole mining in Meghalaya is not simply a case of regulatory defiance. It is produced by livelihood dependence, Sixth Schedule institutional complexity, weak enforcement capacity, and supply-chain laundering. Judicial bans are necessary but insufficient when the political economy remains unchanged. A durable solution requires an integrated approach: technology-backed monitoring, consistent deterrence, community-linked governance mechanisms, and credible livelihood diversification. Only then can environmental protection, worker safety, and constitutional values translate into real outcomes on the ground.

## GS Paper III: Environment

## 2. Global Climate Governance: Structure, Challenges and the Way Forward

### a. Introduction

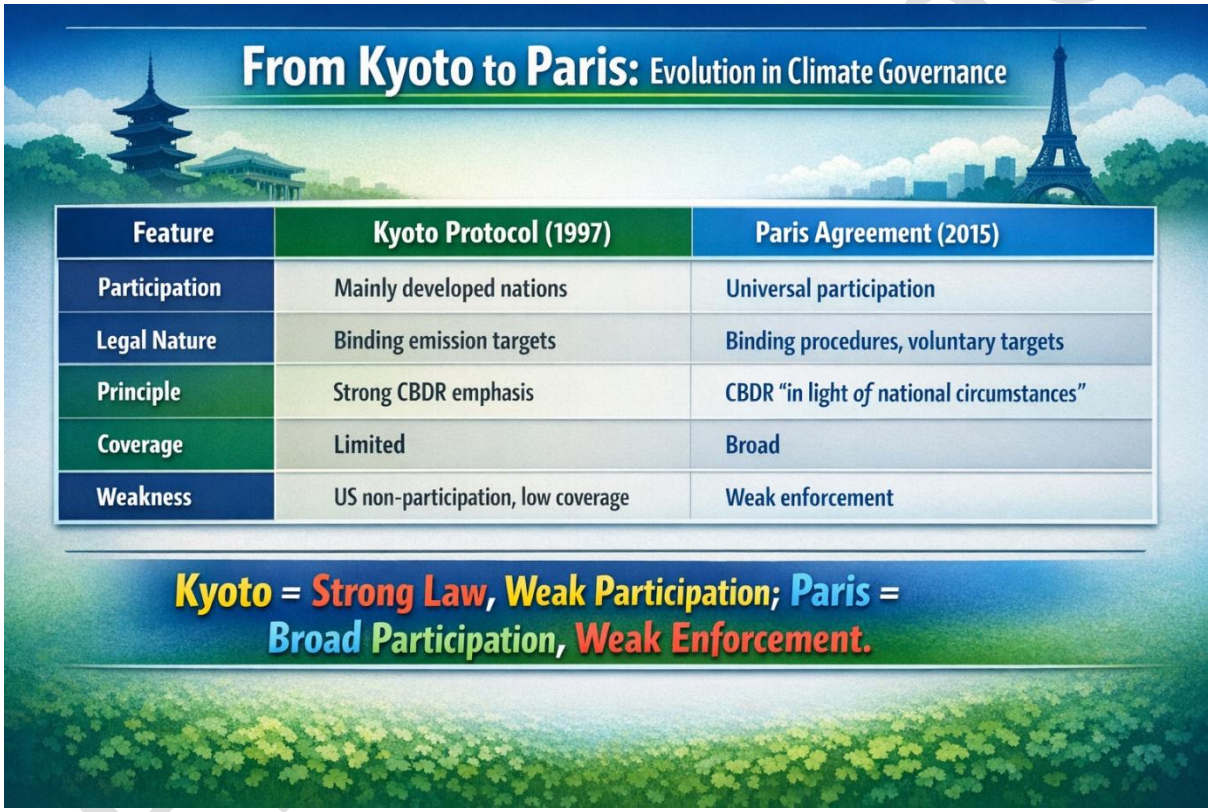
Climate change is a classic global public good problem—a situation where actions in one country affect all countries, and no single state can solve the issue alone. Greenhouse gases emitted anywhere accumulate in the global atmosphere and contribute to rising temperatures everywhere.

In response, the international community has developed a system of global climate governance—a network of treaties, institutions and negotiation platforms designed to coordinate collective action. However, despite more than three decades of negotiations, global emissions continue to rise and the 1.5°C threshold is approaching rapidly. The central issue today is not the absence of institutions, but their limited effectiveness.

## b. Meaning and Institutional Structure of Global Climate Governance

**Meaning**
Global climate governance refers to the collective system of international agreements, institutions and decision-making processes created to address climate change in a coordinated manner.

**Foundational Treaty**
The system is anchored in the United Nations Framework Convention on Climate Change (UNFCCC), adopted in 1992 at the Rio Earth Summit. It provides the legal and procedural foundation for international climate cooperation.




## c. Core Institutional Mechanisms

**Conference of the Parties (COP)**

- The COP is the main decision-making body under the UNFCCC.
- It meets annually to review progress, negotiate commitments and adopt new frameworks.

**Parallel Decision Platforms**

- COP serving as the Meeting of the Parties to the Kyoto Protocol (CMP).
- COP serving as the Meeting of the Parties to the Paris Agreement (CMA).

Together, these mechanisms form the backbone of the global climate regime.

## d. Evolution of the Climate Regime

**i. The Kyoto Protocol (1997)**

**Key features**

- Imposed legally binding emission reduction targets on developed countries.
- Based on the principle of Common But Differentiated Responsibilities (CBDR)—recognising historical responsibility of developed nations.

**Limitations**

- Major emitters did not fully participate or withdrew.
- Limited global coverage reduced overall effectiveness.

**ii. The Paris Agreement (2015)**

**Shift in approach**

- All countries submit Nationally Determined Contributions (NDCs)—self-designed climate plans.
- Procedural obligations are binding, but emission targets themselves are not legally enforceable.

**Trade-off**

- Broader participation compared to Kyoto.
- Weaker enforcement and reliance on voluntary ambition.

## e. The Emissions Gap: Scientific Necessity versus Political Delivery

**i. Current trajectory**
Recent global assessments show emissions at record levels—around 57 gigatonnes of $CO_2$ equivalent. At this pace, global temperatures are likely to cross the 1.5°C threshold in the early 2030s.

**ii. Core problem**
There is a persistent ambition gap:

- Scientific recommendations demand steep emission reductions.
- Aggregated national commitments fall short.

This gap reveals that institutional continuity has not translated into adequate mitigation.

## f. Major Pillars of Climate Governance and Their Constraints

**i. Mitigation**

**Meaning**
Mitigation refers to reducing greenhouse gas emissions.

**Constraint**

- No global enforcement mechanism.
- Fossil fuel phase-out language diluted through consensus negotiations.
- Voluntary pledges insufficient to meet scientific targets.

**ii. Climate Finance**

**Need**
Developing countries require trillions annually for mitigation and adaptation.

**Constraint**

- Financial flows fall far below requirements.
- No clear burden-sharing formula among developed nations.
- Heavy reliance on loans instead of grants increases debt stress.

#### iii. Adaptation

**Meaning**
Adaptation involves preparing societies for climate impacts like floods, droughts and heatwaves.

**Constraint**

- Lack of binding targets.
- Unclear funding baselines.
- Vulnerable nations remain under-supported.

#### iv. Loss and Damage

**Meaning**
Compensation for irreversible climate impacts that cannot be prevented.

**Constraint**

- Fund established, but pledged amounts are small.
- Operational mechanisms still evolving.

#### v. Technology Transfer and Capacity Building

**Need**
Affordable access to renewable and resilient technologies.

**Constraint**

- Intellectual property barriers.
- Insufficient financial backing for large-scale deployment.

#### vi. Just Transition

**Meaning**
Ensuring workers and communities dependent on fossil fuels are not disproportionately harmed.

**Constraint**
Institutional mechanisms remain weak and underfunded.

### g. Structural Constraints in Climate Governance

#### i. Consensus-Based Decision Making

- All major decisions require consensus.
- A small group of countries can dilute ambitious language.

#### ii. Political Short-Termism

- Domestic politics prioritises immediate economic growth.
- Climate benefits are long-term, costs often immediate.

#### iii. Economic Structure and Market Incentives

- Markets reward present profitability.
- Future generations cannot influence current market decisions.

**iv. National Interest versus Global Responsibility**

- States prioritise energy security and employment. When climate commitments appear to restrict development, resistance intensifies.

## h. Continuing Relevance of the UNFCCC

**i. Why it remains indispensable**

- Near-universal membership.
- Legal recognition under international law.
- Inclusive forum for developed and developing nations.

**ii. Limits of alternatives**
Smaller groupings (G7, G20) lack universal legitimacy and inclusivity.

The problem lies in implementation, not institutional absence.

## i. India's Position in Global Climate Governance

**i. Core principles**

- Emphasis on climate justice.
- Defence of CBDR principle.
- Demand for adequate finance and technology from developed nations.

**ii. Domestic commitments**

- 50% installed power capacity from non-fossil sources by 2030.
- Net-zero target by 2070.

India seeks to balance developmental priorities with climate responsibility, placing equity at the centre of negotiations.

## j. Way Forward

**i. Strengthening Climate Finance**

- Clear burden-sharing formulas.
- Reform of multilateral development banks.
- Greater use of grant-based funding.

**ii. Enhancing Accountability**

- Transparent monitoring and review of NDCs.
- Standardised reporting mechanisms.

**iii. Aligning Economic Systems**

- Carbon pricing.
- Removal of fossil fuel subsidies.
- Mandatory climate-risk disclosures.

**iv. Prioritising Adaptation**

- Direct investment in resilient infrastructure.

- Community-level capacity building.

**v. Operationalising Equity**

- Prioritise Least Developed Countries and Small Island Developing States in financial flows.

### k. Ethical Dimensions

- **Inter-generational equity**
  Present generations must safeguard future populations.
- **Climate justice**
  Responsibility should reflect historical emissions.
- **Global distributive fairness**
  Equitable sharing of burdens and benefits is essential for trust and cooperation.

### Conclusion

Global climate governance has achieved institutional durability but not transformative impact. Annual negotiations continue, frameworks expand and commitments are revised, yet emissions remain high.

The central challenge lies in aligning political incentives, economic systems and scientific urgency. Without stronger accountability, scaled-up finance and operationalised equity, climate agreements risk remaining incremental rather than transformational. Effective governance requires converting voluntary ambition into credible, enforceable and adequately financed action. Only then can the international regime move toward genuine climate stabilisation.

## Reader's Note — About This Current Affairs Compilation

Dear Aspirant,

This document is part of the PrepAlpine Current Affairs Series — designed to bring clarity, structure, and precision to your daily UPSC learning.

While every effort has been made to balance depth with brevity, please keep the following in mind:

**1. Orientation & Purpose**

This compilation is curated primarily from the UPSC Mains perspective — with emphasis on conceptual clarity, analytical depth, and interlinkages across GS papers.

However, the PrepAlpine team is simultaneously developing a dedicated Prelims-focused Current Affairs Series, designed for:

- factual coverage
- data recall
- Prelims-style MCQs
- objective pattern analysis

This Prelims Edition will be released separately as a standalone publication.

**2. Content Length**

Some sections may feel shorter or longer depending on topic relevance and news density.
To fit your personal preference, you may freely resize or summarize sections using any LLM tool (ChatGPT, Gemini, Claude, etc.) at your convenience.

**3. Format Flexibility**

The formatting combines:

- paragraphs
- lists
- tables
- visual cues

—all optimised for retention.

If you prefer a specific style (lists → paras, paras → tables, etc.), feel free to convert using any free LLM.

**4. Monthly Current Affairs Release**

The complete Monthly Current Affairs Module will be released soon, optimized to a compact 100–150 pages — comprehensive yet concise, exam-ready, and revision-efficient.