Geography · GS - I

“Inspite of adverse environmental impact, coal mining is still inevitable for development”. Discuss

EXAM YEAR	PAPER	SUBJECT
2017	GS - I	Geography

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Energy security; industrial development; employment generation; environmental degradation; clean coal technology; just transition

Model Answer

Introduction

Coal remains an important source of energy for India, supporting electricity generation, industries and economic development. However, its extraction and use impose substantial environmental and social costs.

Importance of Coal Mining

- **Energy security:** Coal supports electricity generation and helps meet the energy demands of a developing economy.
- **Industrial growth:** Steel, cement and other industries depend significantly on coal.
- **Employment:** Mining creates jobs and supports transport, trade and local economies.
- **Domestic resource utilisation:** Indigenous coal reduces dependence on imported energy.

Environmental Concerns

- Deforestation, habitat destruction and biodiversity loss.
- Air pollution and greenhouse gas emissions.
- Groundwater depletion, contamination and land subsidence.

- Displacement of local communities and livelihood disruption.

Way Forward

- Adopt scientific mining, land reclamation and mine-site afforestation.
- Strengthen pollution monitoring and environmental impact assessments.
- Promote renewable energy, energy efficiency and cleaner technologies.
- Provide reskilling and alternative livelihoods to coal-dependent communities.

Conclusion

Coal mining may remain necessary during India’s energy transition, but development must minimise ecological damage. A gradual transition towards cleaner energy, combined with responsible mining, can balance economic growth and environmental sustainability.

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