Protecting India's Natural Labs

What is the issue?

India is long known as the world's natural laboratory for geo-scientific learning but we are inching towards the disappearance of most of our geological heritage sites.

What is the significance of India's geodiversity?

- Indian landmass broke loose from the Gondwana land 150 million years ago and drifted northwards and got entwined with the world's youngest plate boundary.
- The geological features evolved over billions of years through numerous cycles of tectonic and climate upheavals.
- The Kutch region in Gujarat has dinosaur fossils and Tiruchirappalli of Tamil Nadu is originally a Mesozoic Ocean acting as a store house of Cretaceous (60 million years ago) marine fossils.

What is the status of recognition of geoheritage sites?

- The geological heritage of our planet was first recognised in 1991 at **First International Symposium on the Conservation of our Geological Heritage** (**Digne resolution).**
- UNESCO facilitated efforts to create a formal programme to promote a global network of geoheritage sites complementing the World Heritage Convention and the UNESCO's MAB.
- Countries like Vietnam and Thailand have implemented laws to conserve their geological and natural heritage.
- The **Global Geoparks Network** was founded in 2004 as an international partnership developed under the umbrella of UNESCO.
- Today, there are 169 Global Geoparks across 44 countries.

What is the status of geoheritage sites in India?

- India is a signatory to the establishment of UNESCO Global Geoparks.
- But, it does not have any legislation and policy for conservation of geoheritages.
- Geological Survey of India (GSI) has identified 32 sites as **National**

Geological Monuments.

- Yet **no** geopark in India is recognised by the UNESCO.

Geological Survey of India is an attached office to the Ministry of Mines with its headquarters at Kolkata.

What is the reason for disappearance of most of our geological heritage sites?

- **Lack of geological literacy -** Indian classrooms view disciplines like environmental science and geology inferior to other pure subjects like physics, biology, and chemistry.
- The lack of awareness in geo-heritage parks makes decision-making on climate change difficult.
- **Developmental activities** - The **Anjar site** in Kutch district which has high concentration of iridium providing evidence for a massive meteoritic impact that caused the extinction of dinosaurs about 65 million years ago was destroyed by laying of a new rail track.
- A national geological monument exhibiting a unique rock called **Nepheline Syenite** in Ajmer district of Rajasthan was destroyed in a road-widening project.
- The **Lonar impact crater** in Buldhana district of Maharashtra is under the threat of destruction.
- Unplanned and booming real estate business has destroyed many geoheritage sites.
- Unregulated stone mining activities have also contributed to this destruction.

What does this situation call for?

- The situation calls for immediate implementation of sustainable conservation measures such as those formulated for protecting biodiversity.
- A progressive legal framework is needed to conserve geoheritage sites.
- There is a need for a national conservation policy under the direct supervision of a national body committed to the protection of geo-heritage sites.

Source: The Hindu



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