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## 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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