Lonar Lake – IUGS Geological Heritage List

Prelims: *Current events of National and International Importance| Environment*

Why in News?

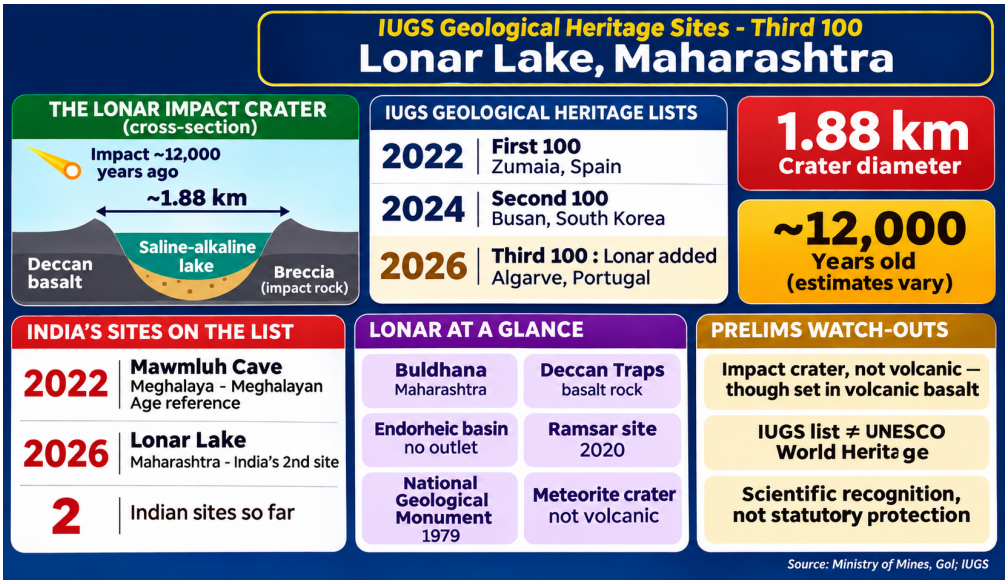
Maharashtra's Lonar Lake has been included in the "Third 100 IUGS Geological Heritage Sites" list; the announcement was made at the International Commission on Geoheritage Sites (IUGS) Geoheritage event in Algarve, Portugal.

- **Geological heritage sites** – These are locations with rare rocks, fossils, landforms, or geological structures that record Earth's history and natural processes.
- **IUGS Geological Heritage List** – Recognises sites with geological features or processes of international scientific importance that serve as global references.
- **Identified by** – IUGS International Commission on Geoheritage under the UNESCO-IUGS International Geoscience Programme (IGCP 731).

In India, the Geological Survey of India (GSI) under the Ministry of Mines identifies and declares Geo-Heritage Sites and National Geological Monuments.

Lonar Lake

- **Location** – Buldhana district, Maharashtra.
- **Origin** – Hypervelocity meteorite-impact crater, about 1.88 km wide and roughly 12,000 years old (estimates vary).
- It is a saline, highly alkaline (soda) lake in an endorheic (closed) basin.
- **Geology** – Formed in the basalt of the Deccan Traps (flood basalts about 65 million years old); once thought volcanic, but shatter cones and maskelynite prove an impact origin.
- **Status** – Ramsar site (2020) and National Geological Monument (1979); India's only meteorite-impact crater lake.
- **Significance** – A natural laboratory for geological and planetary research.



Other Indian Sites on the List

- **Mawmluh Cave, Meghalaya** – First 100 (2022); global reference section for the Meghalayan Age.
- **Lonar Lake, Maharashtra** – Third 100 (2026); India's second site.

Quick facts

IUGS Geological Heritage Sites
• **Body** – IUGS is a non-governmental scientific union founded in 1961; secretariat in Beijing. • **Lists** – First 100 (2022, Zumaia, Spain); Second 100 (2024, Busan, South Korea); Third 100 (2026, Algarve, Portugal). • **Selection** – Sites must be global scientific references; the IUGS Executive Committee ratified the first list in 2022. • **Prelims trap** – Not a UNESCO World Heritage listing; GSI separately notifies National Geological Monuments in India.

Reference

[The Live Nagpur | Maharashtra's Lonar Lake earns place among world's top 100 geological heritage sites]

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