

Popocatepetl volcano

Prelims: Current events of national and international importance |Geograph

Why in News?

Scientists released the first 3D images of the Popocatepetl volcano's interior, developed using AI and five years of seismic data to map magma accumulation zones.

- Popocatepetl, often referred to as "El Popo," is an active **stratovolcano** in central Mexico.
- It is one of the **world's most active volcano**.
- It is the **second-highest peak** in the country, rising to 5,426 meters (17,802 ft).
- It is one of the most dangerous volcanoes in the Ring of Fire.
- **Name** - Derived from the Nahuatl words for "Smoking Mountain".
- **Geological setting**
 - Part of the Trans-Mexican Volcanic Belt.
 - Lies above a subduction zone where the Cocos Plate subducts beneath the North American Plate.
- **History** - Popocatépetl emerged in the crater of other volcanoes in its current form more than 20,000 years ago.
- It has been active since 1994, spewing plumes of smoke, gas and ash more or less daily.
- The activity periodically forms a dome over the main vent, which eventually collapses, causing an eruption.
- In the early 20th century, humans used dynamite to extract sulfur from the crater, provoked an eruption.
- **Traditional customs** - A bottle of tequila placed near a rocky hollow, known as El Popo's belly button, reflects the traditional customs associated with the volcano, including an annual pilgrimage.
- **Movement underground** - Inside an active volcano the rocks, magma, gas and aquifers are moving and it generates seismic signals.
- **Monitoring** - Its frequent activity is closely monitored due to its proximity

to a population of nearly 30 million people.

Reference

[The Hindu | Popocatepetl volcano](#)

