Eruption of Mount Etna

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Why in News?

Italy's Mount Etna, produced an explosive eruption recently, sending a huge cloud of ash, smoke and rock fragments several kilometres into the sky.

- **Background -** Mount Etna is an ***active volcano*** on the east coast of Sicily, the largest island in the ***Mediterranean Sea.***
- Etna's peak is the highest in Italy south of the Alps, and it is the largest of Europe's active volcanoes.
- Etna's summit has 5 craters, which are responsible for most of the volcano's eruptions.
- Flank eruptions also occurs with varying sizes along the slopes of the mountain.
- The volcano is in *near-constant activity.*
- Etna has been a ***World Heritage Site*** since 2013.
- **Kind of eruption** - Experts suggest that the eruption began with an increase in pressure inside the volcano due to expanding gases, which led to the collapse of the southeast crater, resulting in hot lava flows.
- According to Italy's National Institute of Geophysics and Volcanology (INGV) Etna Observatory, the volcano was witnessing a ***"Strombolian" eruption.***
- This type of eruption is usually characterized as discreet ***moderately explosive bursts*** which can *eject chunks of rock and cinders* that can travel hundreds of metres into the air.
- It occurs due to the presence of gas in the magma chamber within the volcano.
- When the gas bubbles reach the surface, they can burst suddenly, throwing material skywards.
- However, some volcanologists believe that Mount Etna did not experience a Strombolian eruption but rather a *Plinian eruption*, in which hot gas, ash, and rock can explode high enough to reach the stratosphere.
- Given that the recent eruption produced by Mount Etna threw material several kilometres into the sky, this set of volcanologists say it was a Plinian eruption.
- **Consequences -** The eruption of Mount Etna released massive clouds of ash into the atmosphere and necessitated the evacuation of affected areas.
- The sudden volcanic activity has disrupted daily lives around the area, leading to emergency evacuations because of the hazardous conditions created by the thick ash fallout.

Reference

The Indian Express | Massive eruption of Italy's Mount Etna



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