

Indonesia's Mount Merapi Erupts

Why In News

- In a devastating turn of events, at least 11 hikers have been confirmed dead following the eruption of **Mount Marapi in western Indonesia**.
- Here were a total of **75 hikers on the mountain** who rescue workers were trying to account for. Twelve were still missing and 49 had descended, some of whom had been taken to hospital.



Mount Merapi

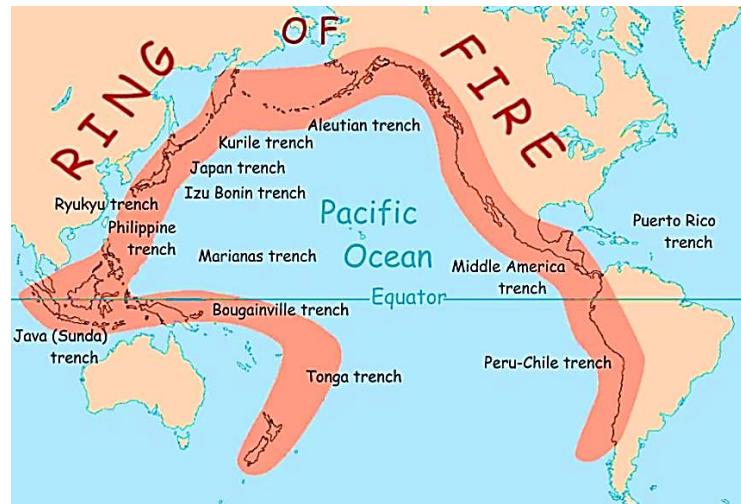
- Mount Marapi on the **island of Sumatra**, with a peak of **2,891 metres** (9,484 feet), erupted sending a tower of **ash 3,000 metres** into the sky.
- Marapi is on **the second alert level** of Indonesia's four-step system and authorities have imposed a three-kilometre exclusion zone around its crater.
- Indonesia sits on the **Pacific's so-called "Ring of Fire"** and has **127 active volcanoes**, according to the country's volcanology agency, including the 2,891-metre (about 9,500 ft) Mount Marapi.



- Mount Merapi, at 2,891 metres, is called the **Fire Mountain in Indonesia** and Java.
- Located on the **border between the Central Java and Yogyakarta provinces**, it is considered the most active volcano in Indonesia and has erupted regularly since 1548.



- The Indonesian archipelago, situated in the **Pacific Ring of Fire**, experiences heightened **volcanic and seismic activity** due to the convergence of continental plates.
- Along much of the Ring of Fire, plates overlap at convergent boundaries called **subduction zones**.
- That is, the plate that is underneath is pushed down, or subducted, by the plate above.



- As rock is subducted, it melts and **becomes magma**. The abundance of magma so near to Earth's surface gives rise to conditions ripe for volcanic activity.
- A significant exception is the border between the Pacific and North American Plates.



- This stretch of the Ring of Fire is a transform boundary, where **plates move sideways** past one another. This type of boundary generates a large number of earthquakes as tension in Earth's crust builds up and is released.