Barren Island Volcano Erupted Again, Facts About Barren Island

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Barren Island recent eruption:

- India’s only active volcano — the Barren Island volcano (Stratovolcano) — in the Andaman and Nicobar Islands is again spewing lava and ash.
- The eruption could be linked with the recent earthquake that rocked Indonesia.

About Barren Island:

- The barren island has been estimated to be 1.8 million old.
- Barren Island, a possession of India in the Andaman Sea about 140 km NE of Port Blair in the Andaman Islands, is the only historically active volcano along the N-S volcanic arc extending between Sumatra and Burma (Myanmar).
- Just 3 kilometers wide, with a two-kilometer-wide caldera, Barren Island is the summit of a volcano that rises about 2,250 meters from the sea floor, with 354 meters above the water line.
- The caldera, which is open to the sea on the west, was created during a major explosive eruption in the late Pleistocene that produced pyroclastic-flow and -surge deposits.
- Historical eruptions have changed the morphology of the pyroclastic cone in the center of the caldera, and lava flows that fill much of the caldera floor have reached the sea along the western coast.

Previous Eruption:

- Historically, the first record of the volcano’s eruption dates back to 1787. It was known to have erupted at least five times over the next 100 years. Then there was silence for a century.
- Erupted again in 1991, after remain dormant for about 150 years.
- It spewed so massively that smoke billowed out for about six months.
- Ever since, there have been eruptions every two-three years, the last in February 2016.
- All of these recorded eruptions lie on the lowest end of the so-called Volcanic Explosivity Index that ranks volcanoes from 1-8 based on the quantity of volcanic material spewed and the strength with which it does so. The latest eruption was a mere ‘2’ on the scale.

**Types of Eruption:**

- Magmatic eruptions involve the decompression of gas within magma that propels it forward.
- Phreatic eruptions are driven by the heat from magma creating superheated steam.
- Phreatomagmatic eruptions are caused by the interaction of water and magma.

**Danger:**

- Detailed studies have shown that the volcano first erupted 1.6 million years ago and sits on a 106-million-year-old crust. However benign this may seem, the renewed volcanic activity over the past few decades has some scientists worried about the amount of unreleased pressure stored in the continental plates that support the volcano.
- An eruption in 2005 was linked to the previous year’s Indonesia-Sumatra earthquake that triggered the destructive tsunami that ravaged India’s southern coast.
- In 1991, the volcano’s eruption was catastrophic for several animal species. According to a report from the Geological Survey of India, a scientific team visited Barren Island on April 8-9, 1993, to assess the impact of the 1991 eruption on the distribution, habit, and abundance of fauna.
Gas emissions still seemed to be oozing. The eruption reduced the number of bird species and their population. Of the 16 previously reported species, only six were observed, of which the Pied Imperial Pigeon (Ducula bicolor) was the most abundant.

A night survey encountered only one rat species (Rattus rattus) and 51 species of insects from eight orders.

The volcanic island is uninhabited and the northern part of the island is, as the name suggests, barren and devoid of vegetation.

Private Citizens of India can visit the volcanic island by chartered boats after obtaining permission of the Forest Department in Port Blair.

Facts about volcanoes:

- The ring of fire – located at the rim of the Pacific Basin, is a continuous chain of oceanic trenches and hundreds of volcanoes spanning some 25,000 miles that is home to 75 per cent of the world’s volcanic activity and 90 per cent of the world’s earthquakes.
- The tallest volcano in the solar system is on Mars. Olympus Mons is a giant shield volcano that rises to an elevation of 27 km, and it measures 550 km across.
- Hawaii’s Kilauea volcano, one of the most active on Earth, has been erupting continuously for 34 years, beginning January 3, 1983. It first erupted 200 years ago, sending speeding lava down its peaks and killing more than 400 people. It was the deadliest volcanic eruption on record in the US.
- The tallest volcano on Earth is Hawaii’s Mauna Kea, with an elevation of 4,207 m. Its measurement from the base of the ocean to its peak is 10,203 m (taller than Mount Everest).