

Mauna Loa-the world's largest active volcano

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In news— For the first time in 38 years, the largest active volcano in the world, Mauna Loa, whose name means “Long Mountain,” in Hawaii, has erupted recently.

About Mauna Loa volcano-

- The Big Island of the US state of **Hawaii is covered by Mauna Loa**, which is **situated inside Hawaii Volcanoes National Park**.
- The volcano has an area larger than 5,179 square kilometres and reaches 13,679 feet above sea level.
- Since the beginning of written history in 1843, there have been 34 eruptions.
- **There are larger volcanoes, but they are either extinct**, which means they are highly unlikely to erupt in the future, or dormant, which means they have not erupted in a very long time.
- **Five volcanoes, including Mauna Loa, make up the Big Island of Hawaii**, the southernmost island in the Hawaiian archipelago.
- The volcano and Mauna Kea, the world's tallest mountain as measured from its undersea base over 20,000 feet below the ocean's surface, are both located on the Big Island.

Mauna Loa is the largest and accounts for nearly half of the island's land area.

- Since Mauna Loa is so massive, its submerged flanks extend for miles to an ocean bottom that is itself lowered. As a result, the **top of the volcano is about 17 kilometres** above its base.
- When measured from the ocean floor to its top, Mauna Loa is thought to have a volume of at least 18,000 square

miles (75,000 square kilometres), making it the largest volcano in the entire globe.

- **Mauna Loa is spewing sulphur dioxide and other volcanic gases.** When they combine with vapour, oxygen, and dust in the sunlight, they produce volcanic smog or vog.
- The magma of Mauna Loa is typically hotter, drier, and more fluid. Due to this, lava may now begin to flow down the side of the volcano and magma's gas can escape.
- **Shield volcanoes like Mauna Loa are so named because they have long, broad flanks that resemble a warrior's shield.**
- Mauna Loa was a dormant volcano for the last 38 years.
- The Volcanic Explosivity Index (VEI) is a scale used to measure the explosivity of a volcano. It has a range of 1 to 8 with a higher VEI indicating more explosivity.
- While the VEI of the current eruption at Mauna Loa is not known yet, the previous eruption in 1984 was deemed to have a VEI of 0. The highest VEI ever recorded in Mauna Loa has been 2 (in 1854 and 1868).



Some famous volcanoes-

Krakatoa, Indonesia-

- One of the most catastrophic volcanic eruptions ever occurred in Krakatoa in 1883 (VEI 6).
- According to the Dutch colonial authorities, Krakatoa's

eruption and the consequent tsunamis caused 36,417 deaths, though modern estimates peg the number to be much higher.

Mount Vesuvius, Italy-

- **In 79 CE, Mount Vesuvius erupted (VEI 5), in one of the deadliest eruptions in European history,** killing as many as 16,000 and destroying the town of Pompeii.
- It is said to have instantly boiled the blood of all those who were too close to it.

Mount Fuji, Japan-

- It last erupted in 1707-1708 (VEI 5) and had a devastating effect on the local population.
- The tephra release led to significant agricultural decline, leading to widespread starvation in the Edo (now Tokyo) area.

Eyjafjallajökull, Iceland-

- Sometimes referred to as E15, it is one of the many volcanic features of Iceland.
- In 2010, a relatively small eruption (VEI 4) managed to bring air traffic in Europe to a complete standstill.

Kīlauea, Hawaii-

- **Adjacent to the Mauna Loa, this is one of the most active volcanoes on the planet.**
- It has been erupting intermittently since recorded history, with its **eruption lasting from 1983 to 2018 being the longest continuous eruption ever recorded.**
- It is a major tourist attraction, with the earliest hotel built at the edge of the volcano in the 1840s.

Mount St Helens, USA-

- Located in Washington State, Mount St. Helens was a

major eruption that occurred on May 18, 1980 (VEI 5), and it **remains the deadliest and most economically destructive volcanic event in U.S. history.**

- It started after an earthquake hit the region, killing 57 and causing property damage over \$1 billion.
- It remains an active volcano and one that is considered to be amongst the riskiest by scientists.

Note:

- Any volcano that has erupted within the Holocene period (in the last 11,650 years) is considered to be “active” by scientists.
- “Dormant” volcanoes are those active volcanoes which are not in the process of erupting currently, but have the potential to do so in the future.
- “Extinct” volcanoes are ones which scientists predict will never face any further volcanic activity. Ben Nevis, the tallest mountain in the UK, is an extinct volcano.