



Eruptions in Kilauea Volcano

Source: USGS



[Hawaii's Kilauea Volcano](#), one of the world's most active, has started **erupting once again**.

- **Kilauea Volcano:**
 - It is situated in **Hawaii Volcanoes National Park** in **Hawaii Island, USA**.
 - **It is the youngest and most active** Hawaiian [Shield Volcano](#), renowned for **frequent eruptions, with more than 30 times eruptions since 1952**,
 - Kilauea's slopes merge with those of [Mauna Loa](#), another active volcano, to its west and north.
- **Volcano:**
 - A [volcano](#) is an **opening on the surface** that allows material warmer than its surroundings to escape from its interior.
 - **Volcanoes in India: Barren Island (Andaman Islands)**, India's **only active volcano**.

VOLCANOES

A volcano is a vent or a fissure in the crust from which lava (molten rock), ash, gases, rock fragments erupt from a magma chamber below the surface

- **Types: On basis of -**
 - **Periodicity of Eruption:**
 - Active volcano: Recently Erupted
 - Dormant Volcano: Potential for eruption, no imminent signs
 - Extinct: No recent eruptions, low possibility in future
 - **Nature of Eruption:**
 - Hawaiian: Calmest types (low gaseous content)
 - Strombolian: Formation of large gas bubbles in magma
 - Vulcanian: More explosive
 - Plinian eruptions: Magma's volatile gases rise via a narrow conduit
 - Icelandic: Often build lava plateaus
 - **Shape of Volcanoes:**
 - Shield volcanoes: Composed of basaltic lava, low slope
 - Cone volcanoes (Cinder Cones): Most abundant
 - Composite cones (stratovolcanoes): Formed by layers of diverse materials.
- **Volcanic Features:**
 - **Extrusive :**
 - Crater: Cone-shaped vent for magma
 - Caldera: Large, crater-like depression
 - Volcanic Plateaus: Levelled areas from fissure eruptions
- **Intrusive:**
 - Batholiths: Central core of a volcanic mountain.
 - Dyke: Vertical intrusion cutting across country rock bedding.
 - Sills: Tabular intrusions along sedimentary bedding.
 - Laccoliths: Magma injection along horizontal sedimentary bedding.
- **Minor:**
 - Geysers: Underground water above 100°C, powered by magma, results in powerful eruptions with steam and diluted minerals.
 - Hot Springs: Heated water flows quietly along fault zones.
- **Distribution of Volcanoes:**
 - Subduction zones (Circum Pacific Belt)
 - Divergence zones (Mid Atlantic Ridge)
 - Intra-plate oceanic volcanism (Hawaiian chain)
 - Mid-continental belt and volcanoes in Mediterranean region
- **Volcanoes in India:**
 - No volcanoes in Himalayans
 - Barren Island (Only active volcano)
- **Products of Volcanic Eruption:**
 - **Gases:** H, C, O, S, N, CH₄, NH₃
 - **Solid:** Pyroclastic materials
 - **Liquid:** Lava

Volcano Facts

The Bad

- • • • • **Ash**
 - Causes respiratory problems
 - Triggers **lightning**
- • • • • **H2O (water vapour)**
 - Largest contributor to **greenhouse gas** effect on earth
- • • • • **CO2 (carbon dioxide)**
 - **Toxic** in large amounts >10%
 - Contributes to **global warming**
- • • • • **SO2 (sulfur dioxide)**
 - Dissolves in water vapour to form damaging **acid rain**
- • • • • **H2S (hydrogen sulfide)**
 - **Highly toxic** gas that smells like rotten eggs

The Good

Source of materials

Metals, precious gems, and construction material

Power Generation

Geothermal and hydroelectric opportunities

Rich volcanic soils

Yay coffee! The best coffee grows in volcanic soils

92,000

People killed in the deadliest volcano in **Indonesia** in **1815**

20

Volcanoes are **erupting** right **Now**

Supervolcanoes

can plunge the world into an **ice age**

Krakatoa eruption **ruptured** eardrums within **50 KM** radius

2X more **ash** by weight erupted from Mt. St Helens (USA) in 1980 than garbage the entire US produces in 1 year

\$2.2 Billion worth of electrical energy wasted by Krakatoa volcano in **1883, Indonesia**

Read More: [Kilauea Volcano: Hawaii](#)

