

# Bali's Mt. Agung volcano threatening to blow its top: experts

November 27 2017

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If the Mt. Agung volcano erupts, an area of 10-12 kilometres around it will have to be evacuated, but not the whole island of Bali, experts say.

Indonesian authorities have raised a maximum alert as Mount Agung on Bali—an island that attracted nearly five million tourists last year—threatens to erupt.

Here's what experts say:

## **Already erupting?**

Short answer: 'Yes'—but things could get much worse.

"What we are seeing at the moment are small explosions, throwing out hot gases and fragments of molten rock, or ash," explained David Pyle, a volcano expert at the University of Oxford in Britain.

"The Agung volcano commenced a sustained ash eruption on Saturday, with plumes reaching 3,000 metres (nearly two miles) high," explained Mark Tingay, a geologist at the University of Adelaide in Australia.

"The eruption has now moved on to the next, more severe phase, where viscous lava can trap gasses under pressure, potentially leading to an explosion."

## **Major eruption?**

Several scientists remarked that Agung's recent behaviour matches the buildup to the devastating 1963 blast that left 1,600 people dead and ejected enough debris—about a billion metric tonnes—to lower global average temperatures a notch (0.2 - 0.3 degrees Celsius) for about a year.

"Based on what we saw in 1963, the present activity is quite similar to the start of that eruption," said Pyle.

"The probability of a large eruption is high, but this may take some days or weeks to unfold."

David Rothery, a professor at The Open University in Britain, also sees a step-change on the horizon.

"The volcano might at last be delivering the large eruption that has been feared for several weeks," he said.

Jacques-Marie Bardintzeff, a volcanologist at Paris-Sud University, said that "all the warning lights are red."

"My Indonesian colleagues and I think that Agung will erupt," he told AFP.

Other scientists were more cautious.

"We are still far from being able to forecast how eruptions are going to develop," said Carmen Solana, a volcanologist at the University of Portsmouth in England. "It could rapidly increase in activity and produce a vast eruption, or it could die down."

## **Worst case?**

"The [worst case scenario](#) would be a repeat of the 1963 eruption, perhaps a little be larger," Pyle told AFP.

"The main areas that will need to be evacuated are 10-12 kilometres (6-7.5 miles) from the volcano," he said. "There won't be a need for the whole island to be evacuated."

Bali—home to more than four million people and tens of thousands of tourists at any given time—is four times the area of Greater London.

Were Agung to blow its top, impacts would range from sulphur ash and potentially deadly lava flows to loss of tourism, the island's top source of revenue.

"Air-fall ash is a respiratory hazard, kills crops, makes roofs collapse and

can turn into devastating mudflows—known as lahars—as soon as it rains," said Rothery.

While not toxic, ash is also a serious hazard to aircraft, and the reason all flights have been grounded at Bali's international airport.

On runways, ash can make a plane slide out of control during takeoff and landing.

"But the main risk is to the engines," said Guy Gratton, a visiting professor at Britain's Cranfield University. It can solidify onto an engine's turbine blades, "reducing the efficiency, and potentially stopping it."

A big blast would also produce "hot rock avalanches" down the flanks of the volcano, said Mike Burton, a professor at the University of Manchester in England.

As the region enters its rainy season, the risk of mud-and-ash flows increases too.

"They are extremely hazardous as they can flow quickly for long distances, scouring the land and damaging infrastructure, as well as posing a threat to life," said Burton.

The impact on Bali's multi-billion dollar tourism industry would depend on how much of the island is blanketed in ash, along with the force and persistence of a major [eruption](#).

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Citation: Bali's Mt. Agung volcano threatening to blow its top: experts (2017, November 27) retrieved 25 April 2024 from

<https://phys.org/news/2017-11-bali-mt-agung-volcano-threatening.html>

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