

Experts stress danger of life near volcano

Sarah DiLorenzo, Associated Press, 11-25-10

MOUNT MERAPI, Indonesia — The threat from more than 100 volcanoes that dot Indonesia is impossible to predict with any precision.

But that's not the hardest part of the job, says Surono, the head of the country's monitoring agency. The hardest part is getting the message out.

In the days before Indonesia's most volatile volcano awakened from four years of dormancy last month, Surono, who, like many Indonesians uses only one name, said he saw indications that Mount Merapi had more energy pent up in it than he had ever seen before.

But it was not forming its typical lava dome, a glowing red cap that can be seen for miles as magma builds at the summit. In other words, from the villages that cling to its slopes, Merapi didn't look like it was going to blow.

On Oct. 26, a day after Surono put it on its highest alert, Merapi erupted. Ten days later, it expanded its reach, unleashing a surge of gas, rock and other debris totaling 1.7 billion cubic feet, the largest explosion in a century. More than 300 people were killed.

If Surono knew that the biggest eruption in recent memory was imminent, why did the Nov. 5 blast catch many off guard, cutting people down with searing gases as they tried to flee, charring them in their sleep and destroying whole villages?

The fault seems to lie less in failures of prediction than in failures of communication. Villagers who have lived on the volcano all their lives, whose parents lived on the volcano, too, feel they know it.

And they are gifted at reading visual changes in the mountain, a technique used by scientists, said Radan Sukhyar, head of the Geology Agency and Surono's boss. For example, they may take volcanic rock littering a village to mean a blast is coming, and an influx of monkeys and deer from their homes at the peak to mean the area is safe.

But the villagers believe in something more ephemeral, a sixth sense that may lull them into believing the mountain can be understood and tamed. Surono calls this feeling "voodoo," a mix of animism and Hindu beliefs that existed before the rise of Islam in Indonesia. He says the job was much more straightforward when he spoke to people living around Mount Sinabung, a volcano that erupted in September on Sumatra island.

"With Merapi, I must talk about nature and culture," he said. "This is not easy."

Sedyo Wiyono blamed the latest eruption on human failing and suggested that coexistence with the mountain may no longer be possible.

"I think Mount Merapi is no longer friendly to those of us who were born and raised at its foot. Maybe it was our sins that made the volcano so angry," said the 62-year-old, whose son was killed in one of the blasts.

Communicating is key for any geologist, according to Peter Frenzen, who works for the Forest Service at Mount St. Helens, whose 1980 eruption was the deadliest in U.S. history. In the U.S., he said, scientists fret about sounding an alarm too often or too high because it can make their warnings background noise.

But scientists in Alaska and the Pacific Northwest mostly deal with the evacuation of visitor centers or monitoring posts. In Indonesia, by contrast, people live on volcanos, where thousands of years of eruptions have fertilized the slopes, making the soil some of the richest in a country packed with people to feed and a paucity of land with which to do it.

Since Merapi began its latest series of eruptions, more than 300,000 have been driven from their homes, living in cramped evacuation centers at the foot of the volcano.

As a result, Surono and his team need to make fine distinctions: 10 miles from the crater is too close, but 13 miles is safe. They want to keep everyone out of harm's way, but they also have to keep as many people in their homes as possible.

And the longer they keep people from their homes without an eruption, the more their credibility is called into question, the more their forecasts become background noise.

"I try to speak with people. I try to touch their hearts. I try to touch their heads — with logical thinking," Surono said.

He tries to explain as simply as possible why he thinks the volcano is dangerous. The night he raised Merapi's alert to its highest level, he called all the chiefs of the nearby villages and begged them to get their residents out when the evacuation order came.

But Surono is not the only one talking.

For instance, there is Maridjan, the sultan-appointed keeper of Merapi's spirits, who frequently refused to evacuate his home when ordered and whose followers sometimes stayed behind with him. He died, at 83, in the first of the latest series of blasts from Merapi. A dozen bodies were found with his, five miles from the summit.

Then there are the neighbors. Saminah, who lived with her husband, Sudarjo, and his mother in a village on the slopes, was assured by a neighbor before the Nov. 5 eruption that there was plenty of time to run away if anything happened.

There was indeed time for Saminah and her husband to flee, but when Sudarjo went back for his mother, the gases racing down the mountain seared 60 percent of his body, landing him in a burn ward, covered from head to toe with bandages, barely breathing on a ventilator.

Another self-appointed expert is Sri Hariyanto, whom anyone tuned to radio Merapi Balerante will hear giving recommendations to evacuate and descriptions of the state of the volcano. Hariyanto is not a volcanologist but runs a community outreach program to educate people on the danger of volcanos.

During the current crisis, he took to trying to predict the mountain's moves himself. He speaks with so much authority, it takes time to realize he has no more training in reading volcano behavior than the villagers who gazed out at Merapi on Oct. 25 and didn't believe it was about to erupt.

Surono said he is happy to have local groups disseminate information about Merapi, but he wants them to

disseminate the scientists' information. Hariyanto, on the other hand, believes 30 years lived in the mountain's shadow gives him a special connection to Merapi.

"Everyone has intuition; I use it," he said.

Surono tries to outline the risks as best he can and plead with people to listen. But his boss wonders if more drastic action might be taken. Sukhyar said experts are considering recommending that some villages not be rebuilt at all.

"Every volcano has places where people live, but we have to admit that we live in places with the potential for danger," he said. "We must admit that, at some volcanos, the threat is quite open-ended."