

Indonesia's mud volcano flows on

After four years, spewing about 100,000 tons a day, the Lusi mud volcano in East Java shows no signs of letting up. Initially linked to an earthquake, the spill is now being linked to drilling.

John M. Glionna, Los Angeles Times, 7-10-10

SIDOARJO, Indonesia -- For four long years, Reni Sualeha has lived in the shadow of a monster, a menacing chemical flow of fetid gray mud that belches unchecked from the bowels of the earth near her home.

Known as the Lusi mud volcano, its spread is so relentless — burping noxious gas, swallowing communities, killing 14 people and forcing the evacuations of 60,000 — that some say it could star in its own sci-fi thriller.

Those in the United States who are wondering just how long the ruptured oil well in the Gulf of Mexico could possibly keep gushing should listen to Sualeha's cautionary tale.

Each day, she watches as a series of fissures, marked by an ominous smoke plume, pump out 100,000 tons of mud. New chemical fires erupt from smaller, gas-seeping cracks in a vision from hell that has closed roads and demolished buildings, including one just down the road from Sualeha's tiny home.

"It's not from this planet," she said of the volcano.

The mudflow is slowly gobbling up the countryside. Now covering 2,000 acres, it's 65 feet deep in some places, submerging factories, schools, farms and a dozen villages.

Indonesian officials have insisted that the deadly flow was the result of a natural disaster: an earthquake that struck 175 miles away just before the mud began its onslaught in 2006.

But evidence from a team of independent U.S. and British geologists suggests that the mud volcano, like the British Petroleum oil disaster, was man-made, the result of a 2006 drilling accident at a nearby gas exploration site. And these geologists say they have no idea when the mudflow will stop, if ever.

The accident, many here charge, is just the latest example of corruption and incompetence in the impoverished Southeast Asian nation's attempt to exploit its energy resources.

PT Lapindo Brantas, a company that owns a controlling stake in the project, is controlled by the family of Aburizal Bakrie, one of Indonesia's wealthiest men, who at the time of the rupture was the government's minister for people's welfare.

The company has denied any connection to the mudflow, but it also has agreed to pay \$400 million to compensate 10,000 families, as ordered by President Susilo Bambang Yudhoyono. Many of those people say they have received only one-fifth of their settlement.

The government has been shouldering the cost of mitigating the flow, erecting an earthen dike to contain the main mud stream, building huge pumps near the source to divert newly rising sludge away from villages.

Activists estimate that the total cost of cleanup and settlement payments will run into the billions of dollars. If they can obtain a legal ruling establishing Lapindo Brantas as responsible, they say, the company could be forced to pay more, if not all, of the damages.

BP, the company involved in the Gulf of Mexico oil leak, is learning that such a prospect could be incredibly expensive. Analysts estimate that the company could pay more than \$60 billion in legal costs alone. The current cleanup costs are estimated to be \$60 million a day.

Indonesia, meanwhile, seems nowhere near exerting such financial pressure on Lapindo Brantas.

Last year, regional authorities halted their investigation of the mudflow, citing a lack of evidence to link Lapindo Brantas to the volcano's eruption. The Indonesian Supreme Court has also upheld a lower court's dismissal of a lawsuit by environmentalists blaming the company for the disaster.

Meanwhile, Bakrie, 63, who many believe has aspirations to become president, has been chosen to lead a new joint secretariat likely to play an important role in determining government policy, including its focus on energy.

But citing the new U.S. and British geologic evidence, activists have called for the inquiry to be reopened. "It's a national scandal," said Bambang Catur Nusantara, a regional director of the Indonesian Forum for the Environment. "The company is getting away with murder. And the government is doing nothing."

In a paper published in the journal *Marine and Petroleum Geology*, U.S. and British researchers said their findings — funded by a grant from the U.S. National Science Foundation — suggest that the disaster was caused when operators pulled the drill while the natural gas well was unstable.

Co-author Michael Manga, a geology professor at UC Berkeley, said the pressure in the 2-mile-deep well created cracks in the earth that allowed seeping gas to push the mud to the surface.

He said the mudflow can't be capped like the BP oil spill because the mud comes from a series of hard-to-contain fissures that also vent gas.

"In 30 years, there have been many much larger and closer earthquakes, and none of them caused any mud eruptions," he said. "This quake was much too small and far away."

Company officials dispute that hypothesis. "We find that [the] claims are merely speculative and not based on any credible data," said Nurrochmat Sawolo, senior drilling adviser at Energi Mega Persada. The firm, owned by the Bakrie group, indirectly controls Lapindo Brantas.

"Our study is based on the most definitive dataset from the drilling rig," he said. "This is a source of information that is completely automated, an unbiased set of recorded drilling parameters."

Manga stands by his results. "My level of confidence is so strong that if I'm wrong, I should be fired," he said. "Our science is as good as it can be."

Manga doesn't know when the mudflow will stop. "It can keep erupting, pretty much forever."

Wahyu Mulyanto and her family were driven from their home in 2006.

"It was just so surreal to see our house swallowed by mud," she said. "It's hard to describe: From a small hole comes this mud that gradually swallows everything in its path: my house, my job, my life."

On a towering earthen wall built to contain the flow, a new economy capitalizes on the disaster. Hawkers peddle explanatory DVDs, sell snacks and offer tours to tourists who arrive by the busload.

"This thing is world-famous," said hawker Muhammad Jafar, who lost his job when his factory was swallowed by the mud. "People want to come and see for themselves the power of nature."

Since the flow erupted, 170 new gas bubbles have broken through the surface, spewing unsafe levels of methane. The fissures, where temperatures can reach 140 degrees, have led officials to warn against even lighting matches in the area.

Some survivors have made the best of their plight. Sualeha showed off a makeshift stove in her yard that captures the oozing gas to heat water.

"Look, the flame is blue," she said, flinching as she lighted the stove.

She pointed to cracks in her home she believes were caused by the underground pressure. "Sometimes at night," she said, "when I smell the gas and think of what might happen, I shudder."

Sualeha is no longer waiting for the government to save her.

"I'm just a poor villager, but I can still read between the lines," she said. "The government is protecting a company run by one of its own.... What can you do?"