

The price Hawaiians are prepared to pay for living near volcanoes

November 19 2014, by Jazmin Scarlett



No one was hurt. Credit: EPA

The destruction caused by the lava of Kilauea are grabbing the attention of the <u>international media</u>. Last week, footage showed this eruption claiming its first house in Pahoa and people began to question whether to try to <u>halt the flow of lava</u> and how you might go about it.

But the daughter of the family's home that was destroyed was



remarkably sanguine about losing the family home:

If you're going to live on a volcano, it's about her (the Hawaiian Goddess Pele), not us ... if she wants her land back, then get out of the way. I like to call it 'paradise tax'.

The volcano is part of their culture. Pele is such a dominant force in Hawaiian's lives they tend to accept the possibility that it might erupt. For a lot of Hawaiians, their respect for the volcano god appears to override their fear of eruptions.

For instance, the now-displaced family is building another home on older, solidified <u>lava</u>. Hawaii is entirely volcanic due to being situated on a hot spot resulting in a continual output of volcanic material. As far as I am aware, the family did not have insurance. This shows their ability to <u>bounce back</u> and recover from a hazardous event.

Not everyone responds in the same way. Some people are scared, some panic or remain anxious. And yet Hawaiian people have dealt with Kilauea's almost continuous eruption for more than <u>50 years now</u>. Over the course of many generations, they are actively learning about the volcano and the risks it poses.

Hawaii hasn't lost many lives to the lava of Kilauea – mainly because the lava flows are slow (due to a combination of its properties and the land it flows over) – slow enough, at least, for people to respond in time and adjust to the situation (for example evacuating like the Pahoa family did a month before their home was destroyed) but also because of the combined efforts of the public, the civil defence and government authorities.

To date, Kilauea has <u>destroyed</u> more than 200 properties, many roads and claimed the lives of four people in modern times. Historically, the



largest number killed by a Mount Kilauea explosion was in 1790, ranging from 80-400 people, a number still being debated.

Someone's got your back

The civil defence teams, with the combined efforts of volcanologists and all those involved in keeping the people safe, have experience in how to deal with and adapt to the ever-evolving situation. A <u>recent update</u> shows a collective calm and professionalism, presenting the information in a way that Hawaiians can comprehend.

The risk of property being destroyed is neither exaggerated nor underestimated. The authorities explain the risk by presenting as much information as available – and Hawaiians tend to trust that the authorities are being realistic. This feeds into how people learn and assess the risk to themselves and their properties.

Business as usual

At present there appears to be little chance of halting the advancing lava flow. The properties of the lava and external influences, such as the steepness of the terrain, mean that the point at which the lava flow might stop naturally is not yet apparent.

What has been shown in news bulletins are the more runny lava flows that volcanologists call "pāhoehoe" (the "hoe" meaning "to paddle" in Hawaiian) but this is not representative of the reality of the eruption which is producing more viscous, slower moving lava (or "aʻā" as it is known locally). As in Italy and Iceland there have been attempts to stop lava flows in Hawaii but with mixed results. For instance, according to a report in NPR, a US\$2m engineering project successfully diverted lava flows near Mount Etna in 1983. But a similar attempt in Hawaii in 1955



and 1960, however, failed because of lack of proper understanding of the situation.

Given the effectiveness of the volcanic hazard management system in place in Hawaii, I have no doubt that such attempts will be made if they are reasonable, through the combined efforts of volcanologists, engineers, the civil defence and a guaranteed investment for the project.

But in case the Hawaiian authorities don't succeed in halting or diverting the eruption and the flow of lava, we mustn't underestimate the power of Hawaiian culture and belief to deal with such volcanoes. Living in such parts of the world, disaster resilience is not an urgency but a way of life.

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