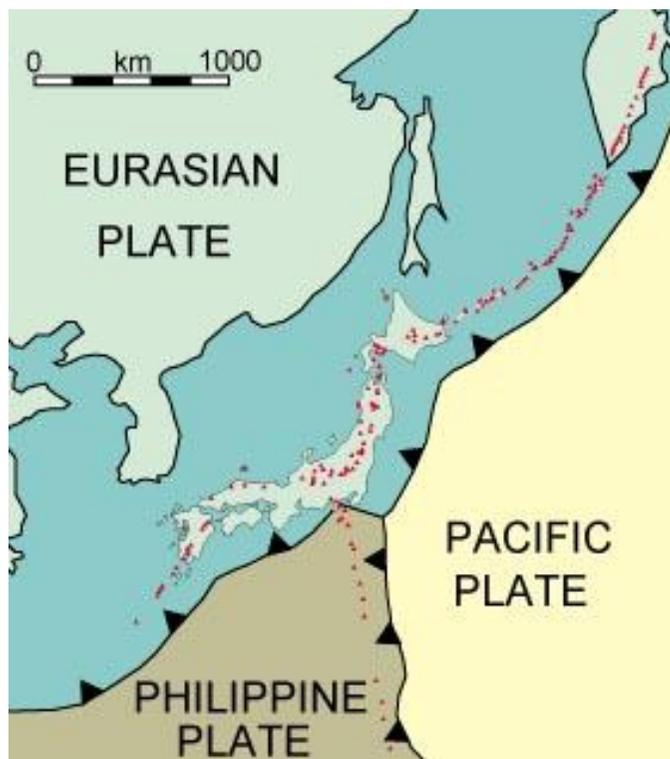


Activity 2 - Stakeholder role play

Student tasks:

*Study these two maps which locate Mt.Ontake, and explain, using the maps, why Japan has so many active volcanoes like Mt.Ontake.

Map showing the position of the tectonic plates, Japan and its volcanoes



Map showing the location of Mt. Ontake



Geographical Association Mt.Ontake teaching resources from geography.org.uk

The Mt.Ontake eruption affected different groups of people in different ways; each of these stakeholders has their own experiences and opinions of the disaster.

***Read** these actual quotes from four different stakeholders about the Mt.Ontake eruption 2014.

Hikers on Mt.Ontake: (source: <http://twitchy.com/2014/09/27/japanese-hiker-tweets-enjoying-mt-ontake-all-alone-1-minute-before-eruption-photo/>)

A hiker tweeted, 'Enjoying Mt. Ontake all alone', merely one minute before the eruption.

6:03 AM - 27 Sep 2014

[Let's hope very much that he survived]

A hiker's video diary of the eruption from their phone: <https://www.youtube.com/watch?v=7Ea3uED1Zgc> .

Three other hikers gave quotes to the media: (source: <http://space.io9.com/violent-eruption-traps-hikers-at-mount-ontake-japan-1639813357>)

'The heat of the magma rising inside the volcano melted the surface snow. Ash turned the water in the streams cloudy.'

'The ash collected on the building roofs and they soon collapsed. When we got down to our car it was coated in ash.'

'The gases made me cough and they stuck in my throat, at the foot of the mountain someone had hand written a sign saying 'The volcano has erupted. Climbing is forbidden'.

Geographical Association Mt.Ontake teaching resources from geography.org.uk

Local officials: (source: <http://www.latimes.com/world/worldnow/la-fg-hikers-dead-japan-volcano-20140928-story.html>)

Each of these quotes is taken from an official speaking to the media:

'We had more than the usual number of tourists and hikers'.

' 660 people had used the aerial lift that day'.

'It is a three hour hike from the lift to the summit. Beginners can do the hike'.

'There was no warning of the volcanic eruption. After it we raised the alert level from one [or normal] to three meaning restricted access.'

' How the victims died remains unclear, though experts say it was probably from suffocation due to the ash, and falling rocks, toxic gases or some combination of them. Some of the bodies had severe contusions.'

Volcanologists (University experts, source: <http://theconversation.com/why-japans-deadly-ontake-eruption-could-not-be-predicted-32333>)

'Mt.Ontake is a Statovolcano, it erupted in 1979/80, 1991 and 2007. Before this there have been no known eruptions'.

'Predicting eruptions is an ambition we are far from realising.'

'Magma moving under a volcano will cause a volcanic tremor and release gases like sulphur dioxide. If closely monitored these signs may make immanent eruption forecasting possible.'

'Volcanoes are erupting in Iceland, Hawaii, Indonesia and Mexico. Other eruptions have recently occurred in the Philippines and Papua New Guinea have calmed down. Could there be a "volcano season?"'

The Volcano Monitors: (source: <http://theconversation.com/why-japans-deadly-ontake-eruption-could-not-be-predicted-32333>)

'We are the Japan Meteorological Agency [JMA]. We have monitored Mt. Ontake since 1890'.

'Seismometers around the volcano record tremors, and other instruments measure any other changes around the volcano'.

'We have noted a slight increase in volcanic tremors since September 2013, but analysis of information is hard because we have very little past data from Mt .Ontake to work with.'

'The Mt.Ontake 2014 eruption did not give out the signals we would expect of a typical eruption'.

'Images suggest that water seeped into the volcano, became superheated by the magma, flashed to steam creating a Phreatic Eruption'.

Task

***Imagine** a conference with these four stakeholders after the Mt.Ontake eruption has ended to discuss the future use of Mt.Ontake.

* Consider issues like:

- access [access to all visitors or restricted access?]
- monitoring [same level of monitoring for eruptions, closer monitoring or less monitoring?]
- education [better hazard training of visitors, same as now or less training?]

***Discuss** in your group and then note down where the stakeholders would agree in their vision of the future use of Mt.Ontake and where there would be conflicts of interest. A Venn diagram or other form of table would be a good way of illustrating this.

***Decide** what you think the Japanese government would decide as their vision for the future use of Mt.Ontake. Give reasons for your decision.