# Shimabara Peninsula Geopark Leaflet: Volcanoes and Geology

### Why is the Shimabara Peninsula so volcanically active?

Deep beneath Tachibana Bay, off the coast of the town of Obama, a large reservoir of magma is rising from the earth's mantle. This magma spreads underground at an upward angle from west to east, releasing gas and heating the groundwater. The magma flow causes the northern and southern parts of the Shimabara Peninsula to split, creating the perfect environment for volcanoes like the ones in Unzen.

### Why does the Shimabara Peninsula experience so many earthquakes?

The Shimabara Peninsula is crisscrossed by deep cracks in the earth's crust called "faults." Faults are where different sections of the crust move against, over, or under each other. This tectonic movement is the main cause of earthquakes. However, some of Shimabara's earthquakes are caused not by movement along faults but by volcanoes. The middle section of the peninsula between the Chijiwa Fault in the north and the Kanahama Fault in the south is slowly sinking as the plates on either side of it move away from each other. The sinking portion between two faults is called a "graben," the German word for "trench." As the Unzen Graben sinks, magma bubbles up to the surface, forming new volcanoes.

### When was the last time a volcano erupted on the Shimabara Peninsula?

From 1990 to 1995, Mt. Fugen erupted many times, creating domes of lava that collapsed and sent debris and hot ash cascading into the valleys below. Forty-three people died in the pyroclastic flows created by the eruptions, and thousands of homes and farms in the town of Shimabara were destroyed. The mountain created by the eruptions, Mt. Heisei Shinzan, is now the highest peak in Nagasaki Prefecture.

## Is it safe to visit the mountains?

Yes. Ever since the eruptions ended in 1995, volcanologists have kept close watch over the mountain with an advanced system of monitoring devices, and infrastructure improvements have greatly reduced the risks posed by future eruptions.