

Aso-Kuju National Park, Volcanoes

There has been volcanic activity in the Aso-Kuju National Park area for at least 270,000 years. The present geological structure of the area has been formed by volcanic activity during the last 90,000 years. The Aso Caldera, measuring 18 km from east to west and 25 km from north to south, was formed by four separate eruptions that took place over several thousands of years.

During the first stage, there were three periods of activity which occurred between 120,000 and 270,000 years ago, when huge pyroclastic flows formed plateaus around the active crater site. Approximately 90,000 years ago another eruption broadened the pyroclastic plateau. After this eruption, the process of caldera formation was triggered by massive landslides, cave-ins, and the eventual collapse of the crater. The caldera site then collected vast amounts of rainfall, and for a long period was a large lake. Several thousand years' seismic activities then caused this water to drain, resulting in the current caldera structure.

The Kuju Mountains are also volcanic. This activity began approximately 150,000 years ago. Over the last 5,000 years, there have been volcanic eruptions about once every thousand years. The most recent large-scale magma eruption was that of Mt. Kurodake, about 1,700 years ago. More recently, on October 11th, 1995, Mt. Io erupted, ejecting cinders the size of a fist distance of up to 100 m from the crater. Even now, Mt. Io still emits gas fumes.

Home to two active volcanoes, Mt. Aso in the Aso range and Mt. Io in the Kuju range, the Aso-Kuju area still experiences volcanic activity, and in recent years (three times since 2010) has had a number of smaller-scale eruptions, mostly consisting of ash and rocks.

Despite the risk of having to evacuate the crater area when there is any danger of an eruption, there are many benefits to this volcanic environment, namely the rich water resources, the hot springs, and the cool climate in the summer months.