

The Shinmoedake Eruption of 2011, Kirishima Volcano and Activities of Kirishima Geopark

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Kirishima Volcano is a generic designation of a cluster of Quaternary volcanoes situated at the boundary of Kagoshima and Miyazaki Prefectures, southern Kyushu, Japan. Shinmoedake (1421 m a.s.l.), an active volcano in the Kirishima Volcano, has had small eruptions from time to time since its small-scale eruption in August of 2008. On the morning of January 26, an eruption occurred without any remarkable precursor. An ash eruption blowing out volcanic ash lasted continuously from the morning to around 15:30. From about 16:00, it developed to a pumice eruption with accompanying continuous air shocks. Although the eruption calmed down after 18:00, violent pumice eruptions occurred from around 2:00 the following day until dawn. A pyroclastic flow of about 1 km long from the crater was confirmed on the morning of January 27. Pumice eruption occurred again in the evening of January 27 and continued for about 2 hr. On January 26 and 27, a volume of pumice and volcanic ash fell on the leeward areas. Moreover, from January 28 to 30, lava accumulated in the crater, and on February 1 an explosive eruption sent air shocks that broke windows and injured some people. Given these circumstances, nearby neighborhood associations have offered information on regulations regarding entry into the mountains and traffic news and have called out to residents in nearby communities to stay alert for eruptions.

In the area around Kirishima Volcano, we have been putting much effort in disaster prevention as part of promoting Geopark activities. In March of 2009, we constructed a Kirishima Volcano Disaster Prevention Map and distributed the map to residents in nearby communities and from April to May held information sessions at every neighborhood association. We believe that the smooth evacuation of residents in communities near the volcano in response to the recent eruption was a result of such preparations. We also believe that the many lectures and geotourism events about Kirishima Volcano we have thus far planned played a large role in educating the civil servants in nearby municipalities and residents of the area about Kirishima Volcano, which in turn led to their calm response to the eruption.

It might be said that the eruption of Shinmoedake in 2011 added new findings to Kirishima Geopark and simultaneously showed for the first time in the world that geoparks have extremely important roles in their disaster-prevention aspects.