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The 2010-2011 Eruption of Bromo Volcano, East Java, Indonesia
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As one of active volcanoes in East Java, Bromo volcano located at Tengger Caldera which administratively belongs to Probolinggo Regency. Based on the historical eruptions, the volcano was dominated by phreatic eruption. The eruptions were generally preceded by volcanic tremor as happened in 1995 and 2004. After the eruption in 2004, the volcanic activity was only showing gas emission from the crater.

The precursor changed when the volcanic activity of Bromo volcano started to increase in November 2010. Initially, the color of emission changed from thick whitish to grayish on November 8th. One hour later number of volcanic earthquakes gradually increased. The first phreatic eruption occurred on November 20th. On November 23rd, two eruptions took place which were also accompanied by tremor. The alert level of Bromo volcano was increased to level III (SIAGA) and 7.5 hours later the level was upgraded to the level IV (AWAS). The rapid upgraded was caused by enlarging in amplitude maximum of tremor from 5 mm until 30 mm. The intensity of the eruption gradually decreased and CVGHM decided to downgrade the status to the level III (SIAGA) on December 6.

The eruption is still ongoing until now. The seismograf has recorded tremor with the maximum amplitude varying between 5-40 mm. Until the middle of December, the crater ejected thick grey-brownish ashfall ranges from 400-2000 meter height. Late December, incandescent volcanic material that visually observed was emerged from the crater and pumice that was also ejected. That event indicates that the eruption of Bromo became magmatic. However, the alert level is still in level III (SIAGA). CVGHM has recommended not entering the danger zone with 2 km in radius from the crater.

キーワード: Bromo volcano, Phreatic Eruption, Magmatic, Volcanic earthquake, Tremor
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