Eruptions of Bulusan Volcano since November 2010

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Bulusan Volcano in the Province of Sorsogon, southern Luzon, is one of the 23 active volcanoes in Philippines (Fig. 1; PHIVOLCS, 2002). Intermittent phreatic eruptions occurred starting November 6, 2010 (Fig. 2). On November 9, a part of the eruption column collapsed and elutriation clouds drifted down slope (Fig. 3). On February 21, 2011, another phreatic eruption produced a 3-km ash column (Fig. 4). Essential material is not recognized in the eruptive products. Gypsum is detected in aggregated ash by XRD analysis (Fig. 5). Presence of this mineral may be caused by interaction between fine ash and volcanic gas (e.g., SO_2 and H_2O). Such detailed observation of eruption column behaviour and its constitutions are important for high-resolution volcanic geology.

Fig. 2. Photograph of erupting Bulusan volcano, viewed from the south on 6 Nov. 2010 (photograph by Maria Elinor Ignacio).

Fig. 3. Photograph of erupting Bulusan volcano, viewed from Irosin Town proper (from the south) on 9 Nov. 2010 (photograph by Jovic Evasco).

Fig. 5. Aggregated ash produced by the eruption of Bulusan volcano on 21 Feb. 2011.

Fig. 1. Index maps of Bulusan volcano. The topographic map was compiled using the program KASHMIR from SRTM-3 data.

Fig. 4. Photograph of erupting Bulusan volcano, viewed from Irosin Town proper (from the south) on 21 Feb. 2011 (photograph by Volcano Monitoring Group, PHIVOLCS).

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Reference

PHIVOLCS, 2002. Volcanoes of the Philippines. Department of Science and Technology (DOST), Quezon City, Philippine, 41p.