

Review on pre-cursor events of Krakatau 1883 caldera-forming eruption

—Can we catch the precursor events of caldera-forming eruption?—

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Caldera-forming eruptions, erupted volume more than 10km³, occurred once or twice during 100 years. Indonesia was suffered twice for the last 200 years, and three times within 1,000 years from caldera-forming eruption. I compiled the precursor process to the caldera-forming eruptions of Krakatau 1883 after a dormant period or a long-time low activity stage (Nishimura, 1980, Yokoyama, 1981, Simkin and Fiske, 1983; Carey et al., 1996; Mandeville et al., 1996). During the last a few months, we may have caught geologically the short-term process as the progressive activity to the climax eruption in cases of Krakatau 1883 eruption (Takada, 2010; Takada et al., 2012). For Krakatau eruption, earthquakes increased; wide-range hydrothermal activity occurred; small-scale eruptions increased. However, the problem is to evaluate or predict when the volcano reaches a climax condition, and how much the volcano erupts. The evacuation plan depends on them.

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