Geophysical Research Abstracts, Vol. 8, 10377, 2006
SRef-ID: 1607-7962/gra/EGU06-A-10377

A phreato-magmatic eruption as future hazard in densely populated area around Ceremai volcano, West Java, Indonesia

R.D. Hadisantono, Y.O.P Siagian and E.K Abdurachman
Centre of Volcanology and Geological Hazard Mitigation, Bandung, Indonesia

Ceremai volcano (3.078 m a.s.l) is located about some 25 km southwest of Cirebon the nearest big city in the area. This is an A-type active strato volcano in West Java, Indonesia. This volcano is surrounded by three major densely populated cities namely Kuningan, Cirebon and Majalengka and hundreds of villages around its flanks. The latest activity during the 20^{th} century which is claimed as phreatic eruption took place in 1938.

The previous eruption products show that they are resulted from the magmatic and phreato-magmatic eruptions originating either from the central crater and flank eruption centres. The central crater produces pyroclastic flows, pyroclastic falls and ejected rocks, lava flows and lahars as the secondary process, whereas the flank eruption centres produce lava flows, pyroclastic cone (tuff rings) and maars.

Most of the flank eruption vents produce lava flows, but farther to the gentler and flat plain areas the eruptions tend to form maars associated with pyroclastic cone. As the evidence, this kind of maar with pyroclastic cone has occurred in densely populated area during the 19^{th} century called Setu Patok, about 7.5 km south of Cirebon.

The geologic structure of the area related to the presence of Ceremai as the nearest active volcano is not an impossible thing where a similar occurrence may take place in the future at different nearby villages those are now more densely populated.