



Broadband seismological observations at two phase geothermal area in West Java, Indonesia

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In order to improve our understanding and enhancing the knowledge about structures and dynamics of geothermal reservoirs for geothermal exploration and a sustainable use of the resource, we assess geothermal reservoirs with an integrated multi-scale and multi-disciplinary approach. A passive seismic monitoring study started in October 2012 with the deployment of a network of 30 broadband seismic stations and 4 short period seismic stations around a two phase geothermal area in West Java, Indonesia. This geothermal field is situated inside the volcanic zone in the center of West Java. Sediments and volcanic product were deposited less than 50,000 years ago. The presence of a complex tectonic setting may explain co-existence of a large variety of intense surface manifestations like fumaroles, hot-steaming grounds, hot water pools, and active volcanoes (Guntur and Papandayan volcanoes). These co-existent features suggest an intimate coupling between volcanic, tectonic and hydrothermal processes in this area. We describe the set-up of the broadband network and discuss first observations.