

## Tsunami deposits from the off-Sumatra earthquake tsunami on December 26, 2004 around Banda Aceh city, northern Sumatra, Indonesia

# Takanobu Kamataki[1]; Yuichi Nishimura[2]; Guy Gelfenbaum[3]; Andrew L. Moore[4]; Rahmat Triyono[5]

[1] AFRC, GSJ/AIST; [2] Inst. Seismology and Volcanology, Hokkaido Univ.; [3] USGS; [4] Kent State Univ; [5] BMG, Indonesia

The Mw 9.0 earthquake that struck east-south Asia on December 26, 2004, was the largest earthquake in the world since the 1964 Alaska earthquake. This earthquake generated a giant tsunami, which caused the catastrophic disaster around the Indian Ocean. The tsunami disaster was the worst in the province of the Nanggroe Aceh Darussalam of northern Sumatra Island in Indonesia. Our international tsunami survey team investigated around the Banda Aceh city from January 20, 2005 to January 28, 2005. We measured the tsunami height and the flow direction, and estimated the distribution of the tsunami deposits.

The tsunami deposit of this area ranges 0 to 70 cm in thickness, and is mostly composed of well-sorted beach sands containing many shells, corals, and rip-up crusts. This tsunami deposit can be subdivided into a few units, and erosionally overlies the soil. This tsunami deposit extends at least about 500 m from the shore line, and shows landward decreases in the thickness. A landward decrease in the thickness of sandy layer indicates the deposition from run-up currents.