

Grain size distribution of tsunami deposits by the 2004 Indian Ocean Tsunami along alluvial plains, Thailand

Naoto Koiwa[1]; Hide-aki Matsumoto[2]; Youhei Watanabe[3]; Chalchai TANAVUD[4]

[1] none; [2] Resional Management, Tohoku Gakuin Univ.; [3] Hirosaki Uinv.; [4] Sonkla Univ.

The 2004 Indian Ocean Tsunami damaged enormously coastal areas of countries surrounding the Indian Ocean. To understand the relationship between spatial distribution of Tsunami deposits and micro-topography in the 2004 Indian Ocean Tsunami, we conducted the field survey in Nam Khem and Kaolak plains, southwestern part of Thailand.

In these plains, several beach ridge ranges develop along the coast line. The investigated area is covered by tsunami deposits which consist of thin sandy sediments. Although there is tendency the tsunami deposits become thinner and finer grained to the inland, the sediment on the swale is thicker than on the ridge sediment. The tsunami deposits show normal grading structure.

The result of grain size analysis indicate that the origin of tsunami deposits consist of mixed fine material eroded beach ridge and derived from shallow sea bottom.