

Mud deposition due to Typhoon Durian on 4-5th December 2006 in BaDong beach, Vietnam

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BaDnog beach is located at the southeastern coast of Mekong River Delta, TraVinh province, southern Vietnam. It is a typical meso-tidal beach system. Since November 2005 we have repeatedly studied surface sedimentation and morphological change controlled by Asian monsoon effects. On March 2007, we described strange mud layers and mud clasts around the high-tide shoreline on Lines A and BT. The diameters of the mud clasts are 1-30 cm and the roundness varies from angular block shape to ellipse spherical shape. Furthermore, we dug among sand bars near the coast and high-tide shoreline. Then we found some mud layers under the beach and sand bars. According to comparison with field data of March 2007 and November 2006, we summarized five important characteristics: (1) Mud layers were found only in the south area such as Lines A and BT because this area had a depositional tendency during March 2007 and November 2006. (2) Mud layers were distributed between the surfaces of March 2007 and November 2006, and mostly spread over the surface of November 2006. (3) The thickness of the mud layers is 1-30 cm. The maximum number of mud layers is three. These are associated with thin sand layers, which consist of very fine sand, derived from beach and associated traction structures such as plane bed and wave ripple. (4) The mud includes much organic materials and its color suggests a subtidal mud origin. The southern Vietnam region has rarely been damaged by strong typhoon since 1997. But, Typhoon Durian hit Vietnam's southern regions on 4-5th December, 2006. We guess the mud layers were brought from the subtidal area to the high-tide shoreline due to the strong waves of this typhoon. Also we guess the mud clasts were washed out from buried mud layers under the beach and sand bars due to the strong waves during the winter monsoon after the typhoon.