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Probable Occurrence of Paleo-Tsunami Deposit: Evidence from Preliminary Trench Investigations Around Port Blair, South Andaman, India

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Our reconnaissance survey after the 2004 earthquake revealed prominent subsidence of along east coast of South Andaman. Preliminary trenches were excavated around MithaKhadi and Hathi Tapu area located along the left bank of Port Blair Bay which experienced subsidence of about 1 m. The exposed stratigraphic succession in trench revealed occurrence of two prominent sand units. The topmost medium to coarse grained sand unit (S1) suggestive of the present (2004) tsunami sand overlying the present brown clayey soil unit (S1) and another prominent sand layer overlying the brown clayey soil - S2. This sand unit (S2) shows sharp contact with respect to the underlying soil (S2) unit probably deposited by old tsunami in the area. Also the underlying lithounits show distinct evidence of liquefaction which would have occurred during shaking before the sand was deposited. The buried sand layer probably indicates deposition during 1881 earthquake of Mw 7.9 (?) occurred close to Car Nicobar. In the light of this preliminary investigation it is proposed to undertake more detail study to reconstruct the stratigarphy of recent sediments to establish the sequence of paleo-tsunami deposits from this region.