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Tsunami Intensity Map of India based on Field observations and media reports for Sumatra earthquake (M9) of 26 Dec. 2004

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Information of Tsunami heights relating to the mega thrust earthquake in Aceh, Indonesia, the 26th of December 2004 has been compiled for the Indian coast. This compilation archives much of the field scientific observations and through media information. The M 9.0 Earthquake at 6.28 hours IST at the epicenter led to an aftershock sequence of about 250 in Sumatra and across the Andaman region covering a secondary rupture of 1200km long. In the present investigations, the maximum height of the surge 7m at Nagapatnam and minimum at Vizianagaram(Bogapuram) (2m) in the East coast of India. Based on the reports of the heights of tsunami surge and damages, we have prepared an Intensity map. In addition, we have four historical records of Tsunamis near Indonesia, Pakistan and one at Bay of Bengal in the last century are given.

While earthquakes could not be predicted in advance, once the earthquake was detected it is possible to give about 2-3 hours of notice of a potential Tsunami. In addition, coastal dwellers are kept informed through media to go to high ground quickly following the tremors and waves. Several changes due to the recent Tsunami like Bathymetry, Temperature, seiches, shoreline geomorphology is also presented.

Highlights in our observations in the field are Buckingham Canal in A.P., Rocky wave breaker in T.N, Casuarina, Mangrove and Coconut plantation along coasts saved thousands of fishermen. Birds and animals, before the occurrence of the Tsunami migrated to safer places. The recession of the sea before Tsunami was observed at many places along the coasts.