



## **Characteristics of Meteorological and Atmospheric Parameters associated with Sumatra Earthquake of December 26, 2004**

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Due to strong coupling between land, ocean and atmosphere, significant changes have been observed with recent coastal earthquakes. Various land, ocean, atmospheric and ionospheric parameters are found to show changes prior to the earthquake events that may be associated with the build up of stress in the epicentral region. The recent Sumatra earthquake of magnitude 9.0 caused intense tsunami which took lives of about 200,000 people and made million people homeless who were living along the coastal areas of numerous countries. In the present paper, we have carried out detailed analysis of multi sensor data and have found changes in various atmospheric, meteorological and ocean parameters in the region around the Indian Ocean and the Bay of Bengal prior and after the Sumatra earthquake event of December 26, 2004. These parameters are compared with a low magnitude earthquake event. The influence of strong tsunami generated by the Sumatra earthquake show strong and characteristic behavior of atmospheric and meteorological parameters. These parameters may provide early information about strong earthquakes if the seismically active oceanic regions are monitored continuously.