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#### **RESEARCH PAPER**

# Recent Erosion-Accretion scenario of Hugli estuary using geoinformatics

### SUBHANIL GUHA\* AND ANINDITA DEY

Department of Geography, Nazrul Balika Vidyalaya, GUMA(W.B.) INDIA (Email: anindita.geo@gmail.com)

### Abstract

The present study shows coastal morphological changes in a complex dynamic coastal zone like Hugli Estuary. This is an area where eustatic, isostatic and tectonic forces control the significant geomorpholoical changes in a combine manner. The prime objective of the research work is to detect and estimate of the recently developed zones under erosion and accretion of the estuary using a series of multi-temporal satellite images namely IRS 1C 28/11/99, IRS 1C 27/03/2000, IRS 1D 19/02/2001, IRS P6 20/11/2005 and IRS P6 28/02/2008. The entire analytical research work has been performed under a sophisticated remote sensing and GIS platform to achieve higher accuracy and precision in computation. The final output reveals that in very recent years, some parts of the area reflect severe rate of erosion while the rest of the area indicates high rate of accretion. Frequent tides with severe cyclones and soil erosion due to large scale deforestation are strongly responsible for the land use change for the entire study area in recent years.

Key Words: Eustatic, Geomorphology, GIS, Multi-temporal, Remote sensing

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\* Author for correspondence

Subhanil Guha, Department of Geography, Dinabandhu Andrews College, KOLKATA (W.B.) INDIA (Email: subhanilguha@gmail.com)