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Nilay Kanti Barman
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Coastal Morphodynamics Integrated Spatial Modeling on the Deltaic Balasore Coast, India



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Balasore Coast, India



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*Dedicated to
Mr. M.N. Barman*

Preface

Today coastal zone has been bowed into a ground of inconsistency by the assorted users, developers, concern groups, local development authorities and environmentalists. The low land and deltaic coast are structurally multifaceted, geomorphologically sundry, environmentally delicate, physically susceptible to phenomenal hazards and culturally noteworthy so far as the development and spreading out of human habitation is alarmed.

Different twigs of systematic study are now vigorously affianced in coastal research to impart clear understanding of the coastal processes and nature of coastal systems with its changes. But existing literatures fall short to come up to the expectations and aspirations of students, researchers, NGOs, development groups and others individuals who are in unvarying require of advanced texts, information, basic research methods and contemporary analysis to investigate the complex coast.

Coastal morphodynamics rivets the reciprocated co-adjustment of processes and forms. It endow with an outline from which to simplify athwart space and time scales. The book commences these perceptions and sketches, geological background, materials and coastal procedures. Even though there are physical perceptions which oversee the response of sediment to forcing aspects such as wave energy, the convolution of nonlinear relations means that it is usually complicated to scale up to enlighten conduct over time scales that are pertinent to human societies.

The present book is based a lot of our own research experiences in east coast of India. It also illustrates comprehensively on the scientific literature and pays meticulous esteem in provisos of historical viewpoint to those coastal scientists who have put up the practicalities of what we discern. We hope that it instills impressive of the sagacity of speculate that we experience about the coast and recommends new outlooks on how the coast is formed.

The methods, materials and results of this present work are presented in six chapters which have been so chosen as to give a wide-ranging and methodical initiative about the recent approaches to revise the tropical low land coast.

December 2015

Nilay Kanti Barman
Soumendu Chatterjee
Ashis Kumar Paul

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We express our sincere gratitude to Vidyasagar University and also other Government offices for providing our self the computational facilities, laboratory facilities and relevant data concerning to our need to carry out this work.

We are also obliged the inhabitants of Subarnarekha delta for sharing their experience with our self all through the field work.

Finally, we are indebted to our family for their patience and support. We are thankful to everyone, who encourage our self to fulfil the book writing in due time.

Vidyasagar University
Midnapore
December 2015

Nilay Kanti Barman
Soumendu Chatterjee
Ashis Kumar Paul

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