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BOOK REVIEW

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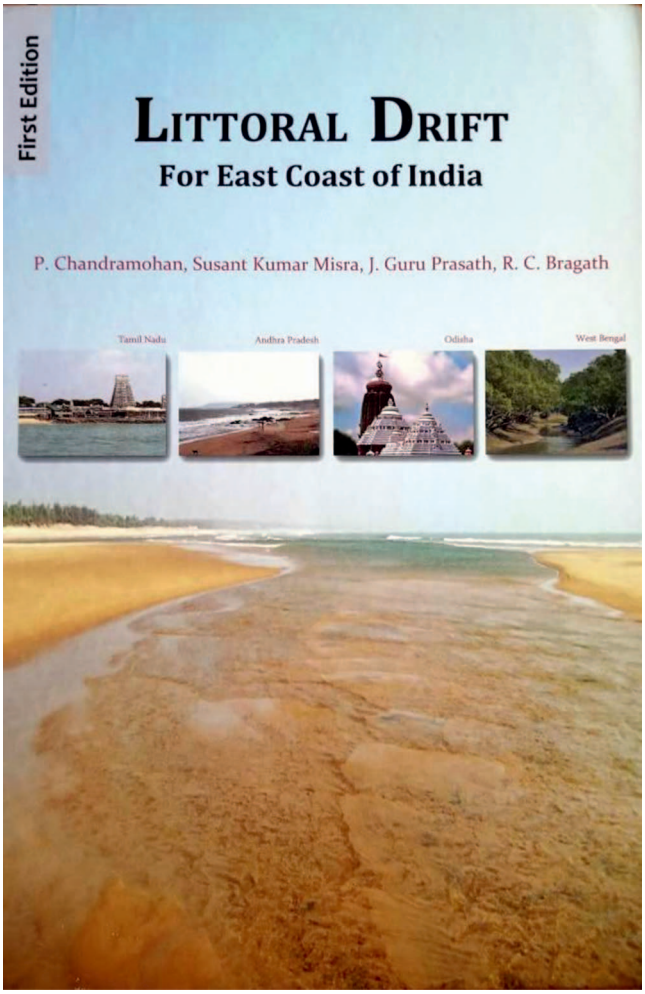
Chandramohan, P.; Misra, S.K.; Prasath, J.G., and Bragth, R.C., 2022. *Littoral Drift for East Coast of India*. Chennai, India: Indomer Coastal Hydraulics (P) Ltd., v.p. (paginated by chapter), plus appendices.



This handsomely produced volume, dedicated to *Mother Ocean*, is designed for use by port engineers, coastal planners and designers, academicians, and students who are working on coastal processes and littoral drift on the east coast of India. The volume is kept in open source by Indomer Coastal Hydraulics, Chennai, India, and is available for *gratis* downloading as a PDF at: https://www.indomer.com/books/littoraldrift. The book is divided into seven chapters as follows: (1) "Introduction", (2) "Description of Littoral Drift", (3) "Estimation of Littoral Drift", (4) "Coastal Morphology of East Coast of India", (5) "Wave Climate of East Coast of India", (6) "Littoral Drift Along East Coast of India", and (7) "Sediment Cell and Bypassing of Littoral Drift". The chapters are followed by a comprehensive list of references that are collected by chapter. A comprehensive list of tables and figures precedes the Introduction in Chapter 1. Each chapter contains a color map of the east coast of India that highlights the locations of littoral cells. Very useful and extensive color tables and maps are provided in Chapter 6 that detail gross and net littoral drift along the Andhra Pradesh, Odisha, Tamil Nadu, and West Bengal coasts, along with monthly summaries by volume in cubic meters. The direction of littoral drift and data points are also included in the example of these coastal exemplars covering the whole east coast of India. Wave climates are also provided in the form of color wave roses for specified coastal segments (*i.e.* Tamil Nadu, Andhra Pradesh, Odisha, and West Bengal). Hindcasting wave data are directly available from Indomer.

This hardbound review copy of the book is handsomely produced on sturdy glossy paper with numerous color photographs that are spread throughout the text. Each chapter contains explanatory expositions that introduce various approaches for determining aspects of littoral drift. As such, the volume has value not only as a critical research database for quantification of littoral drift but can also be deployed as a primer that introduces basic concepts, methods, and procedures that are used to estimate longshore drift. Because of the broad scope of the book, covering the whole east coast of India, and detailed identification of numerous littoral cells with interpretive expositions, the volume is highly recommended for those researchers interested in littoral drift along the Indian east coast as well as those wishing to learn more about the general nature of sediment movement alongshore and cross the shore at nodal points such as rocky promontories.

The authors are commended for producing this landmark volume in the study of longshore drift using the east coast of India as an example of what can be accomplished on a subcontinental scale. The 10 coastal states of India (*i.e.* Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Pondicherry, Andhra Pradesh, Odisha, and West Bengal) make up about 6632 km. with the west coastal states accounting for about half of the total continental shore with 3484 km. Approximately a third (34%) of the Indian shore is eroding and about a quarter (28%) is accreting. The remaining third (38%) is stable. Morphologically, the Indian coast is comprised by sandy beach (43%), tidal flats (36%), rocky shores (11%), and marshy land (10%). The large amount of data that is provided in this volume for the east coast of India is legion and not to be underestimated, as few coastal regions of the world provide such a detailed level of study over long coastal lengths.

In a word, this book is a masterpiece of scientific indulgence that stands as a template for other studies of littoral drift elsewhere. It is clear that attention to detail and careful field observation and measurement were paramount concerns for

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understanding present shore conditions. This study, which represents a reasonable simulacrum of actual littoral sedimentary dynamics along the east coast of India, should serve as a template for similar regional studies elsewhere. Far from fatuity, this study should be regarded as a hypostatization that is emblematic of the results of coastal morphodynamic processes as visualized and quantified in terms of process-form-materials concepts. This sedulous work not only merits scrutiny but deserves accolades, for it provides incentive to other coastal researchers to indulge detailed, regional-scale quantification of shore erosion and accretion amidst stable morphological anchors (such as rocky promontories).

This work by Chandramohan, Misra, Prasath, and Bragath is highly recommended to coastal researchers and others who are interested in aspects of littoral drift of coastal sediments. This review featured a hard bound copy, but PDFs are available for free from Indomer Coastal Hydraulics (P) Ltd. in Chennai, India. Little more than exuberant praise can be offered for this book, which represents an outstanding world class effort for the study of littoral drift on the east coast of India.

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