Book Review

Coastal Geomorphology of India: Shrikant Karlekar, Diamond Publication: 2017

'Coastal Geomorphology of India' authored by Dr. Shrikant Karlekar is a welcome addition to text-book literature on Indian geomorphology and coasts in particular since the publication of Enayat Ahmad's 1972 contribution with the same name. The author also acknowledges the same fact and points out Ahmad's book as the 'first and only book' on this topic. The XIV+181 pages' book consists of a foreword by Prof. K. R. Dikshit, a preface, a brief introduction, six relevant chapters including twenty tables and seventy-nine figures and a total of three hundred and twenty-four cited references including benchmark publications since 1945 to 2016. Author's effort towards bringing global and Indian research literature on coastal geomorphology and that ofIndian coast within the fold of this book is commendable and praiseworthy. It is heartening to note the relatively new research contributions coming after the year 2000 through the twenty-two pages' References section.

The brief Introduction presents a comprehensive overview on the Indian coast with two informative tables and highlights on the evolution of the Indian coast as well as research literature on Indian coastal geomorphology. The book is organized in six relevant chapters and start with a very brief account on 'The Continental Shelf of India' as chapter 1. This chapter is precise and contains information on the nature and sediments of Indian continental shelf and even a brief description on delimitation of the outer limits of the continental shelf.

Chapter 2 titled as 'Processes on Indian Coasts' is again a brief one comprising of three pages and highlights on sediment supply, winds, waves, longshore currents and tides respectively as major processes working upon the coast. The concept of tides and longshore currents are well-explained even in brief text-length while waves and winds sections could have more discussion in the context of their process definition rather than the relevant statistical facts. It is not very clear why the chapter unconventionally mentioned about sediment supply right at the start, even before discussing any of the coastal processes. Sediment supply is rather an effect of coastal processes and perhaps is not a process per se. Nature, supply, transport and depositional rate of sediments in the coast occur within the superset of erosion and deposition which are two major geomorphic processes in any geomorphological system. Sediments are essentially result of any kind of erosion of a form and may aid in further erosion and/or get deposited as per the force of the acting process. It would have been interesting if such discussions were a part of this chapter with some insights from author's long and rich research experience.

The third chapter provides a sneak peek into 'Landforms on Indian Coasts' in a well-organized fashion under the

conventional classification of 'Erosional' and 'Depositional' landforms along with relevant discussion on respective coastal processes that have shaped them. However, this chapter could have been enriched with field-photographs of the landforms rather than only text. Field photographs perhaps serve the best link to the reader to visualize a landform. In case of macro-form like delta or beach satellite images could have been used as an option.

The fourth chapter on 'The Coral Islands and Island Territories' draws a little surprise as the coral reef coasts of India are discussed here even before the mainland coast of Indian peninsula unlike any conventional discussion where they generally merit a discussion as the last topic. Omission of Gulf of Mannar coral reef islands from the east coast and devotion of more text-length to Lakshadweep coral reef islands as compared to Andaman and Nicobar Islands and for that matter even Gulf of Kachchh coral reefs remain unexplained. Figure 7 and Figure 11 suffers from typographical errors with respect to the proper names of the respective islands. The Geological Time Scale cited as Table 5 under this chapter should have been placed right at the beginning as an independent ready reckoner for any reference of the same coming from any subsequent chapter.

Chapter 5 on 'West Coast of India' has the maximum text-length of seventy-four pages and clearly elucidate author's knowledge and research specialization on the same. The chapter is well-organized to describe the coastal geomorphology of the states of Gujarat, Maharashtra, Goa, Karnataka and Kerala. The chapter is well written with sufficient research details and accompanying tables and illustrations. The figures/maps are quite consistent in presentation and free of typographical errors.

Chapter 6 on 'East Coast of India' comes second in the text-length and is organized with the geomorphological accounts of the coastal states of Tamil Nadu, Puducherry, Andhra Pradesh, Odisha and West Bengal respectively. It would have been highly appreciable if the macro and the micro-forms discussed under each of the state sharing the east coast were also discussed under the conventional classification of erosional and depositional forms rather than "as they appear on the map" while following south to north direction form. Many interesting facts on the occurrence of geomorphological features are highlighted, however, without much analysis or insight on why such occurrences. This chapter in particular suffers from frequent typographical errors (specially with respect to hyphenated words, punctuation marks, place names appearing differently on the same page, conventional representation of units, etc.) in text as well as in the accompanying figures. Matla River has become Malta! River Subarnarekha appears in different spellings throughout the chapter! Some of the figures in this chapter suffer from serious spelling/typographical errors regarding place names. This attracts a thorough editing and proof reading on part of the publishing team for a revised and error-free reprint.

Nandini Ray Chaudhury
Sci/Engr.- SEAED/BPSG/EPSASpace Applications Centre, ISRO
Ahmadabad