

ciety's inability to address the energy issues and find suitable technology solutions that embed into society – this segment has been insufficiently addressed in the book. Pursuing the thought on the continuum within the sustainable development process, starting from problem identification, scientific investigations, evolving technologies, creating a basket of solutions, evolving a basis for rational choice, facilitating implementation and solving teething problems, technology improvement (with people's participation at all stages), this book addresses the first two stages and provides insights into the first and half of the second. Stopping at the stage, as the book has done, potentially leaves a basket of solutions for the 'market' to choose. This has its own potential problems because markets choose solutions that bring most profits, leaving behind the less profitable ones that may be far more sustainable. In this oversight the book inadequately justifies the title – it addresses synergy only partially. Secondly, defining and contextualizing 'sustainable development' are also not visible and consequently some focus is lost. These are greatly desirable inputs for the first chapter that has been brought out as single-line statements quoting Padmanabhan and Mugeraya, or may perhaps have been lost in the reporting process. In spite of these, the book provides a good initiation to the student into the S&T in sustainable development.

By bringing together such a large number of problems within a single area, e.g. that of water, it seems clear that synergy is possible. Addressing these various problems for a specific location can bring in a basket of potential solutions, which many papers have individually reported and that seems to be the objective of the overall exercise. This synthesis and identifying synergy is, however, left to the reader. The nature of the problems tackled and content in the papers are also varied, ranging from providing a canvas of kaleidoscopic solutions (as in the case of energy), to problem description (as in papers on pollution), multiple approaches to resource management (irrigation or GIS), etc. Postgraduate students in technical varisities attempting to carry out research projects in sustainable technologies or sustainable development will greatly benefit from reading this book as it provides a wide repertoire from where they can seek stimulation. A good thing is that the internal debate has shifted to

location-specific problems and potential solutions. This book then has the potential to spark greater local debates and the quest for local and sustainable solutions.

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Geology of NW Bengal Basin. A. B. Das Gupta and Basudev Mukherjee. Geological Society of India, P. B. No. 1922, Gavipuram, Bangalore 560 019. 2006. 154 pp. Price: Rs 250/US \$25.

The book under review is part of a textbook series on the geology of various states in India, being published by the Geological Society of India. The book is authored by two experienced geologists of the ONGC. It deals with the north-western part of the huge Bengal basin. Most of the critical data generated on the area is the result of extensive exploratory activities carried out by oil sector companies, mainly the ONGC. The book presents a synthesis of information which would have otherwise remained in company archives. It is full of geophysical data, well data and numerous cross-sections. The voluminous data are organized in just four chapters – Introduction, Geology, Geological history and Mineral resources. The first chapter provides information of basic and regional nature. The second chapter elaborately describes the evolution of the Bengal basin in the context of plate tectonics theory and the northward drift history of the Indian plate. The chapter begins with a brief introduction about the plate tectonics concept and highlights the evolution of the Bay of Bengal. It also dwells upon the torching of the Bay floor and shape of the Bay. The geotectonic limits of the Bengal basin, its main depositional centre and sources of sediments are described in a succinct manner. The chapter has good illustrations and summarizes the important findings pertaining to the geological evolution of the Bengal basin.

The third chapter begins with the geology of the adjoining peninsular land mass and describes the important mobile

belts that transect the Peninsula. Description about the Delhi–Aravalli mobile belt, the Eastern Ghats mobile belt and the variously termed Narmada–Son–Tapi zone is brief, but well-structured. The Vindhyan basin of the Bundelkhand block, the Cuddapah, the Chhattisgarh and basins of the Dharwar–Bastar–Singhbhum block and the Shillong Mikir plateau are considered to have been formed during Late Proterozoic, whereas the Gondwana basin formation took place during end Carboniferous to early Cretaceous. Also summarized are the important geological features of these basins, including a brief account on Gondwana succession. The geology of the Bengal basin is the distinctive feature of this chapter. It starts with its early history, and highlights the views of the various workers. Discerning the influence of the structural/tectonic setting of the basement in the evolution of a sedimentary basin is not an easy task. The authors have been successful in doing so as they had the access to the kind of geophysical data needed to address the basin configuration. The magnetic data have been used to comprehend the Mesozoic anomaly isochrones. The E–W and N–S cross-sections through the Bay of Bengal evidently portray the overall pattern of the basin fill. The structural and Bouger anomaly maps of the West Bengal shelf visibly show the major faults and areas of gravity anomalies and active riverine alignments. The NNE–SSW section given as figure 24 through the Baidyapur depression, is a good example of sinking of the basin floor through geological time. The geological setting of the basin is described in various sectors; the West Bengal shelf, Dinajpur–Rangpur saddle, the Orissa coast, the Open Bay, etc. Each of these sections is well illustrated by seismic lithostratigraphic logs, stratigraphic successions and well sections. The unconformities discerned in the Mahanadi offshore provide a clue to the stratigraphic events. Towards the later part of the chapter, a complete picture of the evolution of the Bengal basin right from its formative phase sometime in the Upper Jurassic to Pleistocene is provided. Discussion on link-up with deep sea sediments of the Bay is a source of information in this book. While the authors have to be complimented for writing this exhaustive chapter on geological history of the Bengal basin, which is otherwise a complex one with varying lithology, thickness and tectonic setting, it would have

been better if this chapter was further split into sub-chapters from the point of the view of the readers. The key mineral resources of the Bengal basin, petroleum and coal and other minerals are briefly discussed in chapter four.

Overall, the book encompasses the work of the last several decades, and synthesizes it in a cogent manner, supported by relevant geophysical data and excellent

illustrations and tables. The book will benefit those involved in the study of sedimentary basins in general and the Bengal basin in particular. The references cited are all relevant and quite exhaustive. The authors deserve special credit for writing this book on the geology of the NW part of the Bengal basin. Geologists involved in understanding the realm of the most beguiling Bengal and

other sedimentary basins would definitely like to see a copy of this book on their desk.

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