

## **About the Book**

*Coastal Zone Management and its sustainability strategy should safeguard ecological security of the coastal areas to avoid pollution as well as exploitation of living and no-living aquatic resources, protecting the agrarian community and avian population and other floral and faunal breeding grounds. The coastal zone is facing increasing pressures from land use change, development activities shoreline erosion, biodiversity losses and natural calamities. This book tries to cover almost all the fields of research concerning the management of the coastal environment and presents it as an integrated approach. Further, this volume addresses the issues which need immediate attention for facilitating the integrated analysis for the sustainability of coastal zones with consolidated sources of information from scientists working in various aspects of coastal zone. All the articles are peer reviewed and evaluated and are an inter and multidisciplinary source of information, making an effort to link the various views on coastal zones where millions of people's livelihood likely to be at risk if they are not managed with efficient scientific strategies. The contributors have tried to focus their respective views have tried to focus their respective views on the current problems that need urgent attention. Consequently, we see this book as a comprehensive information base, which includes work of experts in their specific fields of research.*

### **Contents:**

#### **Section 1: Evaluation, status prediction, modeling and developments of coastal zones: management issues**

- 1. Observational needs for sustainable coastal prediction and management*
- 2. Ecological modeling as a tool for coastal ecosystem management*
- 3. Current status of coastal zone management practices in India*
- 4. Climate resilient coastal zone development in Bangladesh: Participatory governance for common resources management*
- 5. Present status, challenges and management of the Japanese coastal zone environment*
- 6. Integrating hydrologic and hydrodynamic models for decision support systems and management of coastal zones and estuaries*
- 7. Creation of system "Delta Sea" as a basis of ecosystem approach to the management of large aral sea's coastal zone*

#### **Section 2: Coastal zone water resources (Quantity and quality): challenges for sustainability**

- 8. Critical evaluation of the recent development and trends in submarine groundwater discharge research in Asia*
- 9. Influence of climate factors on the groundwater resources of coastal Tamilnadu*
- 10. Natural arsenic in coastal groundwater in Bengal Delta Region in west Bengal India*
- 11. Chemical composition and origin of the coastal zone thermal springs in far east Russia*

#### **Section 3: Biodiversity of coastal zones and its sustainability**

- 12. Organic matter and mangrove productivity*
- 13. Influence of terrestrial inputs on mangrove and coral reef: primary productivity of the Andaman Island*
- 14. Dissolved metal distribution in Indian mangrove ecosystem: case studies from east coast of India*

#### **Section 4: Threats to coastal Aquatic ecosystem: developmental and sustainability issues**

- 15.** *Shrimp culture: trend, consequences and sustainability in the south-western coastal region of Bangladesh*
- 16.** *Role of sand dunes and mangroves in the mitigation of coastal hazards with reference to 2004 Tsunami*
- 17.** *Assessment of potential health risk through arsenic flow in food chain\_\_ A study in Gangetic Delta of west Bengal*