



Book Review

Sheppard, C. ed. (2000) *Seas at the Millennium: an Environmental Evaluation*

Vol. 1 Regional Chapters: Europe, The Americas and West Africa 934 pp.

Vol. 2 Regional Chapters: The Indian Ocean to the Pacific 920 pp.

Vol. 3 Global Issues and Processes 498 pp.

Pergamon: Amsterdam Oxford. ISBN: 0-08-043207-7. USD 915.50; NLG 1804; EURO 818.62

This weighty (8.5 kg) tome in three volumes sets out to provide an overview of the world's seas and oceans at the turn of the millennium. The first two volumes contain 106 chapters, each based on a defined regional sea area, reporting on the climatic, oceanographic and ecosystem aspects of the region concerned. Each chapter also discusses local environmental quality and resource exploitation issues in the context of the extent of coastal resource management achieved or politically aspired to. The third volume then deals with a range of topics of global concern in a further 28 chapters which generalize many of the issues raised in Volumes 1 and 2. In all some 500 authors have contributed to the three volumes and, notwithstanding a few gaps, the editor has done an impressive job in co-ordinating such a comprehensive range of contributions. A number of geographical areas are missing from the intended global coverage, in some cases stated to be because of poor background scientific knowledge, political restrictions or difficulties of communication. However, gaps on the western coasts of north America between Alaska and southern California, some Atlantic coastal regions of western Europe, the western Mediterranean and New Zealand, for example, are presumably explained by the failure of a few potential authors to deliver promised chapters. One contribution was pulled at a late stage due to political pressure, but it is heartening that many chapters with criticisms of local coastal management procedures are included. Indeed, the overall coverage is most impressive, providing a unique and very useful global database.

As expected, over the range of sea areas covered, there are great variations in the extent of background scientific information available and the extent of environmental management achieved. Not surprisingly the common theme emerges that increased human population density inevitably induces pressure

on environmental quality and sustainable exploitation of natural resources, and very few areas are pristine. There is fairly general political acceptance of the need for integrated coastal zone management schemes but, recurringly, it is stated that local, national and international conflicts of view, in addition to economic counter-pressures, usually slow down the rate of achievement of objectives. Developed nations have had some success in introducing improved management schemes in recent decades but, suggestions that developing nations should try to learn from developed nations by anticipating environmental problems associated with economic development, present developing countries with tough and costly choices.

Generic topics discussed in Volume 3 range from trans-regional problems concerning, for example, mangroves and coral reefs, to global concerns of climate change and the sustainable exploitation of living and non-living resources. All are important and stimulating, raising issues such as the need for wider use of existing local, national and international data sets, the need to evaluate the effectiveness of current global legal instruments already in place, and the need to reconsider the culture of open access to the sea and its possible replacement with more appropriate regional property rights and governance structures. All these and many other issues raised throughout this publication need to be addressed widely and at high levels. It is the case that the open access culture creates an attitude of hunting mode in the context of fisheries, whereas wider application of the concepts of ownership and stewardship might help to change that culture to one of sustainable management. On a global basis there is little doubt that fisheries and other living resources, and non-living resources, are poorly managed and unsustainably exploited, and that continued human population increase seems likely to exacerbate these trends unless the problems are addressed. The case is well made that, urgently at the beginning of the 21st century, tough decisions have to be made concerning regional seas and coastal zones, with a need to balance economic pressures for exploitation against considerations of integrated management.

The editor and authors are to be congratulated for their achievement in compiling these volumes which offer a wealth of well-sourced information and ideas as a basis for further debate concerning regional

124 Book Review

comparisons and spread of best practice in coastal zone management. The books should be an invaluable worldwide reference source for higher education establishments and research organizations concerned with marine environmental science, fisheries, oceanography and engineering, for industrialists concerned with coastal zone development, and for marine policy makers worldwide. They should also be a required

source of information for all national and international aid agencies, and should be of high priority in book presentations provided as part of aid programmes to developing nations.

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