



Oceans 2020: Science, Trends, and the Challenge of Sustainability

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Oceans 2020 presents a comprehensive assessment of the most important science and societal issues that are likely to arise in marine science and ocean management in the next twenty years. Sponsored by the Intergovernmental Oceanographic Commission (IOC), the Scientific Committee on Oceanic Research (SCOR), and the Scientific Committee on Problems of the Environment (SCOPE), the book brings together the world's leading ocean scientists and researchers to analyze the state of

marine science and technology, identify key scientific issues for sustainable development, and evaluate the capability of scientists, governments, and private-sector stakeholders to respond to those issues.

Topics include:

- basic ocean sciences
- pressures on the coastal zone
- climate change and the ocean
- fisheries and fishery science in their search for sustainability
- offshore industries including oil drilling, carbon sequestration, and manganese nodule mining
- marine information for shipping and defense

Also included are chapters on cross-cutting issues including operational oceanography, ocean instrumentation and technology, developing frameworks for cooperation, and capacity building in developing nations. In addition, the book offers an introductory overview and a "Vision to 2020" that outlines a path to rational ocean governance. In each chapter, contributors give a brief but comprehensive overview of the subject and then consider what has been achieved in recent years, define the problems, outline solutions, and set forth recommendations on the needs for and directions of ocean science in support of sustainable development for the next twenty years.

Oceans 2020 suggests what can be done about major marine environmental issues through the better development and application of marine science and technology, focusing on the issues that are most closely related to human and sustainable development. It will help guide countries in developing their marine science and technology strategies and priorities and is an essential source of information for policymakers, government officials, resource managers, scientists, the media, and all those concerned with the current and future health of the oceans.