

Implications for Coral Reef Management and Policy:

Relevant Findings from the 9th International Coral Reef Symposium

Edited by

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Dynamite blast-fishing – Reef Check

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Organization Profiles

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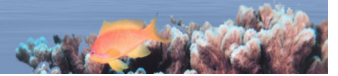
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Call for Actions to Protect and Conserve Coral Reef Ecosystems

CORAL reefs constitute one of the earth's most complex, beautiful and biologically diverse ecosystems. These unique ecosystems benefit people directly by supplying a vast array of goods and services such as food, medicine, recreation, and coastal protection, as well as aesthetic and cultural benefits. Coral reefs occur in over 100 countries. According to one estimate, coral reefs provide over US \$375 billion worth of goods and ecosystem services to humans. The economies of many countries, especially small island nations, are highly dependent on the goods and services that coral reefs provide. In addition, coral reefs are intimately associated with mangrove forests and seagrass meadows and form a broader tropical coastal ecosystem upon which more than a billion people depend.

Unfortunately, many coral reefs around the world are in serious decline. According to the recent report *Status of Coral Reefs of the World: 2000* by the Global Coral Reef Monitoring Network, one quarter of the world's reefs have already been lost and another one-third may disappear within the next 30 years. Coral reefs are threatened both directly and indirectly from a variety of human activities. These threats include coastal development, overexploitation and destructive fishing practices, diseases, land-based pollution and erosion, marine-based pollution, and global climate change. In addition, the recent global impacts of catastrophic events, such as widespread coral bleaching and mortality and increased storm intensity, compound the more localized human impacts that place reefs at risk. There is an urgent need to respond to these threats facing coral reefs at local, national, regional, and global levels in order to address biodiversity loss, food insecurity, loss of economic livelihood, and loss of development potential.

In response to these threats facing coral reefs, the organizers of the 9th International Coral Reef Symposium (ICRS) incorporated strong management and human or socio-economic dimensions into the symposium, expanding their usual biological and ecological emphasis. Over 1500 scientists, managers, resource users, government officials, journalists and others interested in coral reef studies and management gathered in Bali, Indonesia in October of 2000. The overall theme of the



Coral reef with rocky island in Calamianes Islands, Philippines

Photo: Roger Steene

meeting was the *World Coral Reefs in the New Millennium: Bridging Research and Management for Sustainable Development*. To intervene effectively, we need to view and understand coral reefs in multiple dimensions – human, socio-economic, biological, and ecological.

The 9th ICRS continues a process begun in 1969 at the first ICRS – bringing together those interested in coral reef studies and management to share, debate and learn from each other, and to set a course of action to conserve and sustain the coral reefs. Organized into five broad themes: “State of Knowledge;” “Resource Management;” “Socio-economic Values;” “Assessment, Monitoring, and Rehabilitation;” and “The Future of Coral Reefs,” over 1400 papers were presented orally in 58 mini-symposia, and more papers were presented in poster sessions.

The purpose of this report is to synthesize some of the best scientific and management information presented at ICRS for use by those in positions to conserve, protect and rehabilitate coral reefs – policy-makers, managers and the public-at-large. Session convenors, collaborators and colleagues were asked to prepare short syntheses of relevant sessions and/or topics for coral reef management and policy. Each topic area is meant to be a stand-alone piece that can be used separately from the whole report. Some topics relate directly to one or more sessions, while other topics were dispersed throughout many sessions. We extend our sincere thanks and gratitude to Dr. Anugerah

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Although efforts must be made by all parties on all issues, some of the more important recommendations from the 9th ICRS are the following:

For Policymakers

- reduce greenhouse gases and address climate change
- address threats from invasive species and coral diseases
- strengthen law enforcement
- reduce land-based sources of marine pollution
- expand and strengthen marine protected areas
- enhance communication of scientific information to the general public

For Researchers

- encourage research targeted to management needs
- conduct valuation studies of coral reefs

- increase monitoring studies for more informed management

For Managers

- implement co-management approaches
- implement ecosystem level management
- make more use of socioeconomic information in management
- promote stakeholder participation and participatory decision-making in management
- exercise vigilance and precautionary approaches in all coral reef fisheries
- prohibit destructive fishing practices – such as explosives, cyanide and other poisons, dredging, and trawling

We must now utilize the information available to us to conserve and protect the world's coral reefs, in conjunction with a precautionary approach to management. We must also develop policy and management actions that reflect the multiple dimensions of coral reef ecosystems – human, biological and ecological.

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