



The GCRMN - Coordinating coral reef monitoring efforts for effective management

K. Tun and C. Wilkinson

Coral reefs, one of our earth's most valuable and fragile of resources, are being damaged and destroyed at an increasing rate worldwide. The Status of Coral Reefs of the World: 2000 report estimates that at least 27 per cent of the world's reefs have been effectively lost, including 16 per cent that were severely damaged during the massive El Niño and La Niña climate changes of 1998. The world may lose another 14 per cent of its coral reefs in 2 to 10 years, and a further 18 per cent in 10 to 30 years, unless effective management of these valuable resources is implemented soon.

Not all is doom and gloom, however, as the report indicated that about half of the 16 per cent of reefs damaged in 1998 are showing encouraging recovery, with the best recovery occurring within marine protected areas (MPAs) or at isolated reefs. The report also highlighted many examples of successful coral reef conservation around the world, and many outstanding efforts by international agencies to conserve biodiversity of coral reefs.

Coral reefs have been, and continue to be, a difficult ecosystem to monitor and assess. Because coral reefs are underwater and often very remote, it is difficult to gather precise information on their status. Coupled with limited resources available for monitoring efforts, this makes the task of procuring and synthesizing information a difficult one. To address this issue, the Global Coral Reef Monitoring Network (GCRMN), an operational unit of the International Coral Reef Initiative (ICRI), was established in 1995 to provide data and information on the global status of coral reefs, assess how people use and interact with reefs, assist coral reef



Diver conducting Line Intercept Transect (LIT) surveys at a reef in North Sabah, Borneo.

K. Tun

management, and raise awareness among all stakeholders of the status of reefs and the need for urgent action. The GCRMN is maintained by the Australian Institute of Marine Science (AIMS), drawing on its expertise in monitoring. GCRMN also works in association with the U.S. National

Oceanic and Atmospheric Administration's (NOAA) and the WorldFish Center.

The GCRMN constitutes a global network of people, governments, institutes and NGOs monitoring coral reefs and the communities that use them.

The GCRMN works in partnership with existing global and regional monitoring programs like Reef Check, and provides coordinating mechanisms for publishing results for decision makers and the public. The GCRMN encourages and coordinates monitoring at various levels: from grassroots level (communities, schools, tourist operators, tourists, etc.) to governmental departments, NGOs, and global, regional and national institutions of higher learning and research.

The GCRMN provides its network with a range of monitoring methods and protocols, monitoring training, basic equipment, and help with data analysis and report writing. GCRMN also assists in linking all levels of monitoring and monitoring programs/projects into regional nodes, providing data and information on coral reef health and status of reef fishes, and data storage facilities and assistance through ReefBase. GCRMN encourages and assists countries and regions to produce their national and regional Status of the Coral Reefs reports. It also produces global reports on the status of coral reef every two years and ensures that this information receives wide publicity and distribution.

The major features and products of the GCRMN are: a network of people trained to look closely at coral reefs and to monitor their status; nodes of countries cooperating to monitor reefs in their region and report on their status; manuals and protocols for the assessment of ecological and socioeconomic aspects of coral reefs; and National, Regional and Global Status of the Coral Reef reports every two years.

Currently, the GCRMN is represented by 17 regional nodes, with overall coordination by a global coordinator based at AIMS. At the 10th International Coral Reef Symposium (ICRS) held in Okinawa in June 2004, the GCRMN showcased the coral reef monitoring efforts of its members and highlighted



Divers working in pairs to establish survey transects for Reef Check and LIT surveys.

K. Tun

the key role that monitoring plays in the overall understanding of coral reef function and management.

For more information about GCRMN, please contact Clive Wilkinson, the global coordinator of GCRMN at dive.wilkinson@impac.org.au.

Regional Nodes:

- 1) Middle East - Red Sea and Gulf of Aden (PERSGA) Region
- 2) Middle East - Regional Organisation for the Protection of the Marine Environment (ROPME) Sea Region
- 3) Southwest Indian Ocean Islands
- 4) Eastern African
- 5) South Asia
- 6) Southeast Asia
- 7) Northeast Asia
- 8) Australia and PNG
- 9) South West Pacific
- 10) SE and Central Pacific (Polynesia Mana)
- 11) Micronesia (MAREPAC)
- 12) Hawaiian Islands
- 13) US Caribbean
- 14) Northern Caribbean and Atlantic
- 15) North Central America and Mesoamerican Barrier Reef System
- 16) Eastern Caribbean
- 17) Southern Tropical America