Summary Record

Introduction

The South Asia Reef Resilience Workshop, held in Bentota, Sri Lanka, 15-18 January 2007, brought together coral reef scientists, managers and policy makers from five countries in South Asia and around the Bay of Bengal: Indonesia, India, Maldives, Sri Lanka and Thailand. The main objectives of the workshop were to provide insight into the state of coral reef resilience research and management adaptations internationally, identify and discuss regional needs and priorities, as well as to promote learning and exchange of information. Resources recently developed through major international collaborations were highlighted and distributed to participants, including the R2 Resilience Toolkit developed by the Resilience Partnership1 and the Manual for the Study and Conservation of Reef Fish Spawning Aggregations published by the Society for Conservation of Reef Fish Aggregations (SCRFA).

The Workshop was convened by IUCN – The World Conservation Union, in collaboration with Coastal Ocean Research and Development in the Indian Ocean (CORDIO), The Nature Conservancy (TNC) and National Aquatic Resources Research and Development Agency Sri Lanka (NARA), and was funded through a grant from the Ministry for Foreign Affairs of Finland, with support from the Macarthur Foundation, the Michael and Andrea Banks Nature Fund, MBA Financial Services and the Baum Foundation.

The Reef Resilience Concept

Resilience has been defined as “the ability of a system to undergo, absorb and respond to change and disturbance, while maintaining its functions and controls”. This ability depends on a number of factors, both ecological and physical. The implications for coral reef management are that this can help identify areas that recover quickly from bleaching events and other stresses. It also helps identify locations of resistant coral communities, which provide vital refugia that can re-seed degraded areas, as well as other critical areas such as fish spawning aggregations. Protection of these areas is the underlying principle of the reef resilience approach.

Key messages arising from the workshop

Resilience principles are emerging as an important paradigm for understanding and managing complex ecosystems and the interactions between these ecosystems and the human societies that depend on them. The increasing threats associated with climate change as well as other large-scale perturbations and increased population pressures are driving an urgent need to accelerate developments in resilience science and its incorporation into realistic and meaningful management strategies. This need is particularly critical for coral reef ecosystems, which are both highly vulnerable to climate change and also vital to the welfare of large human populations throughout the tropical world. Recognizing this, the South Asia Reef Resilience Workshop recommends that:

- Resilience principles should be applied in the creation, zoning and/or management of Marine Protected Areas (MPAs) as well as in the establishment of networks of MPAs. This includes:
  - assessment of the resistance and resilience of coral reefs within current MPAs and MPA networks;
  - identification and protection of critical areas with reseeding potential, such as reef fish spawning aggregations, resilient or bleaching resistant reef areas;
  - ensuring representation and replication of habitat types in MPAs; and
  - ensuring connectivity among MPAs and other key areas;
- Coral reef monitoring programmes in the region should be further strengthened, and encouraged to incorporate variables, as practical, that measure resilience as well as climate change impacts;
- MPA and coral reef management strategies and approaches should be adaptive, and responsive to results and findings from monitoring programmes as well as science findings;
- Capacity should be built in the region to strengthen coral reef resilience science and management applications, through the Resilience Partnership, its members, and other institutions as appropriate.
- Countries should develop supportive policies for adaptive management of marine ecosystems and the resilience approach, to facilitate the use of resistance/resilience principles in the design and management of MPAs, MPA networks, and their related marine resources.

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Resources on the Web: IUCN Climate Change and Coral Reefs Working Group
www.iucn.org/themes/marine/coral_reefs/cCCR/cCCR_home.html
Resilience Practitioners Network, R2 Toolkit
www.reefresilience.org
Society for Conservation of Reef Fish Aggregations
www.scrfa.org