

# South Asia Coral Reef Experts Group Meeting

Bentota, Sri Lanka, 19-20 January 2007



## Summary Record

The Coral Reef Experts Group Meeting was organized 19-20 January 2007 in Bentota, Sri Lanka, under the theme “Resilience of ecosystems and natural resource dependent coastal communities in the face of climate change and large-scale perturbations”. The objectives of the meeting were to facilitate peer-to-peer exchange on applying resilience principles in management among key coral reef experts in the region; as well as to develop, define and prioritize regional and national/local resilience projects for implementation.

The meeting was convened by IUCN Global Marine Programme and Coastal Ocean Research and Development in the Indian Ocean (CORDIO), in collaboration with National Aquatic Resources Research and Development Agency Sri Lanka (NARA) and with generous support from the Ministry for Foreign Affairs of Finland as well as the MacArthur Foundation.

The Experts Group Meeting brought together eleven scientists and managers from five countries in South Asia and the Andaman Sea: Indonesia, India, Maldives, Sri Lanka, and Thailand. The meeting was facilitated by Dr. Melita Samoily, IUCN, Dr. David Obura, CORDIO, Mr. Jerker Tamelander, IUCN/CORDIO

### Abstract

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. To address this need IUCN works to promote the integration of resilience science and coral reef ecosystem management, with support from, among others, the Ministry for Foreign Affairs of Finland and the MacArthur Foundation. This ad hoc experts group meeting is convened to build further on the South Asia R2 Workshop, providing insight into the state of research and management adaptations internationally, identifying and discussing regional needs, and agreeing on priority activities for implementation under the IUCN project “Management of Climate Change Impacts on Coral Reefs and Coastal Ecosystems in Tsunami-affected Areas of the Andaman Sea and South Asia”.



### Key Outputs and Recommendations

The meeting focused on two major elements of reef resilience theory: 1. Coral reef resilience and resistance to bleaching and other stresses; and 2. Coral reef fish spawning aggregations (FSAs). Building on and responding to the recommendations made at the Reef Resilience workshop held in Bentota, Sri Lanka, 15-18 January 2007, the meeting defined and adopted a set of sub-projects for implementation by national and local partner institutions under the IUCN project "Management of Climate Change Impacts on Coral Reefs and Coastal Ecosystems in Tsunami-affected Areas of the Andaman Sea and South Asia".

*Resilience classification of monitoring sites:* Characteristics of each site will be classified using a profile questionnaire developed by the Resilience Partnership. This will assist in establishing the vulnerability of sites across the Indian Ocean to bleaching and other disturbance, as well as in determining if the present network of reef monitoring sites and MPAs fully encompass the range of bleaching vulnerability and resilience.

*Coral Recruitment and Size Class Structure studies* will be incorporated into regular monitoring programmes. This will provide information on population dynamics and recovery in response to a bleaching or other stress event. This will also include detailed photo documentation.

*Herbivory:* Studies of herbivory will be carried out on selected reefs in order to understand relationships between algal assemblages and herbivores, and the impact of herbivores on influencing algal growth and species composition.

*Reef Fish Spawning Aggregations:* Emphasizing that FSA is an essential element in of resilience theory and vital for many commercially valuable reef fish stocks and reef biodiversity and ecosystem functionality, the meeting adopted a regional project to determine species, sites and seasonal patterns of FSAs, as well as to determine the level of awareness of spawning aggregations among fishers and sensitize fishers and marine resource personnel in South Asia on reef fish spawning aggregations and their implications to conservation and sustainable fisheries. The project will also provide recommendations for management of FSA sites and policy advisories.

### For additional information contact

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Resources on the Web: IUCN Climate Change and Coral Reefs Working Group  
Society for Conservation of Reef Fish Aggregations  
Resilience Practitioners Network, R2 Toolkit