

New strategy to help corals and mangroves survive

Press Release: World Conservation Union

New strategy to help corals and mangroves survive climate change

With climate change threatening tropical marine ecosystems, scientists of the World Conservation Union (IUCN) and The Nature Conservancy are spelling out the survival strategy for coral reefs and mangroves in new publications launched today.

Geneva, Switzerland, 31 October 2006 (IUCN) – Climate change is destroying tropical marine ecosystems through sea temperature increase and ocean acidification. 20% of coral reefs have already been wrecked and a further 50% are facing immediate or long term danger of collapse.

Last week, the media reported that climate change is likely to kill over half of all coral reefs within the next 25 years. A new report “Coral Reef Resilience and Resistance to Bleaching” published today by the World Conservation Union (IUCN) and The Nature Conservancy (TNC) shows that the fate of corals may not yet be sealed. By fighting other stress factors such as pollution or overfishing impacting on coral reefs, reefs will be able to better adapt to climate change impacts.

The report “Managing mangroves for Resilience to Climate Change” follows a similar strategy. To help mangroves, especially threatened by sea-level rise, and corals survive in the face of climate change, the two reports publish a series of strategies and tools to fight the other stress factors impacting on them. Both publications are part of a new IUCN series on climate change and coral reefs.

“The two reports give a clear positive message: while we cannot stop climate change in the short term, we can help tropical marine ecosystems survive. If reef managers and politicians follow the measures proposed in these publications, we may be able to reverse the trend,” says Carl Gustaf Lundin, Head of the IUCN Global Marine Programme.

Increased sea surface temperatures and ocean acidification – due to higher levels of dissolved CO₂ – lead to increased mass coral bleaching and mortality, reduced growth of corals and weakened animal skeletons. Rapid sea level rise, more violent tropical storms and changes in rainfall and salinity are also affecting coral reefs and mangroves.

The idea behind these measures is to keep other disturbances and threats off the reef, to make it healthier and thus more resilient to climate change impacts.

“We need to minimize human impacts such as pollution, overfishing or unsustainable coastal development. Then the coral reefs have a bigger chance of coming back after bleaching and of adapting to rising sea temperatures or more acid waters,” says Gabriel

Grimsditch of the IUCN Global Marine Programme, one of the authors of the publication on coral reefs.

Other measures include protecting so-called ‘refuges’ of particularly healthy and climate-change-resilient sites that may be able to help regenerate degraded coral reefs and mangroves in the future; and monitoring of coral reefs before, during and after a bleaching event to raise awareness amongst managers and politicians.

Coral reefs: home to 25% of marine species globally, while covering only 0.2% of the ocean floor

Coral reefs only cover 0.2% of the ocean floor, but contain an incredible 25% of marine species globally. Coral reefs provide livelihoods to 100 million people and provide the basis for industries such as tourism and fishing, worth an annual net benefit of US\$ 30 billion.

One hectare of mangroves is estimated to deliver products and services worth up to \$900,000. Examples of these products and services include timber and wood chips, an environment for fish spawning, and habitat for economically important species.

However, climate change is compromising these ecosystems’ ability to deliver benefits to plants, animals and humans into the future. At the recently concluded 3rd International Tropical Marine Ecosystems Management Symposium (ITMEMS3, 15-20 October 2006), scientists therefore concluded that sea temperature increase must be limited to 2°C above pre-industrial levels if major damages to tropical ecosystems are to be avoided.

“Rising temperatures and sea-levels challenge reef managers to be flexible and adapt their approaches to make the reefs and mangroves under their care more resilient to climate change as new science and understanding emerges,” says Rodney Salm, Director of the Transforming Coastal Marine Conservation Program at The Nature Conservancy, and the other co-author of the coral reef resilience publication.

“It is high time for action – that is the clear message expressed by scientists at this Symposium and around the world. IUCN therefore works to identify the best science and offer practical solutions to policy-makers and conservation managers, which is the goal of these manuals,” says Lundin.