

Tara-IUCN expedition

How are coral reefs coping with climate change?

By Dr Agnès Abill and Dr David Obura

The effects of climate change on coral reefs are visible today on many reefs worldwide. Predictions for coral reefs are extremely dire with many experts arguing that major changes in abundance of shallow water coral assemblage are inevitable this century. As yet the effects of climate change and other agents of disturbance on coral reefs are not well understood.

It is critical for scientists and managers to understand the impacts of climate change. This is called monitoring for resilience, where resilience is the ability of a system to absorb or recover from disturbance

while maintaining its functions and services. A number of resistance and resilience indicators have been proposed to allow coral reef managers to predict a coral community's response to thermal stress (IUCN Working Group on Climate Change and Coral Reefs [weblink](#)).

To address these research priorities, the IUCN Global Marine Programme establishes critical partnerships with foundations, scientific bodies, and governments to undertake key multi-disciplinary coral reef conservation research and public/educational outreach projects. In particular, the IUCN Global Marine Programme recently developed a partnership with the Tara Foundation and provides technical support to its non-profit program, Tara Expeditions. Tara Expeditions is directed by Etienne Bourgois, chief executive officer of Agnès b, a French fashion brand. The program was initiated in 2003, thanks to the brand's founder, Agnès B., and her determination to commit herself to the planet's remediation. Tara Oceans is its current expedition. The starting point for Tara Expeditions was the acquisition of the unique expedition sailing schooner Tara, previously owned by Dr Jean-Louis Etienne and Sir Peter Blake.

Tara's voyages are dedicated to scientific research on the impact of global warming on the oceans by

widespread bleaching in 1998 that affected the Indian Ocean, and that other local threats, such as sedimentation and crown of thorns seastar outbreaks, were also important determinants of reef health. Fishing pressure was, however, very high, shown by the absence of large fish and top predators at all survey sites.

Next, the Tara stopped at St. Brandon Island in Mauritius, from 22 April to 6 May – a small set of sand islands and reefs on the Carados Carajos shoals some 400 km north of Mauritius. On this