

## Conservancy Protects Mozambique Coral Reefs and Studies Their Response to Ocean Warming

WRITTEN BY [LISA HAYDEN](#) ON DECEMBER 8, 2011



In the East African nation of **Mozambique**, where **90 percent of the people live on less than \$2 a day** and depend heavily on fishing for survival, The Nature Conservancy is using its scientific expertise on the effects of climate change to protect and conserve fragile coral reefs.

In the Primeiras and Segundas Archipelagos off [Mozambique's northern coast](#), a cold, nutrient-rich current flows through sea grass beds and mangroves, creating an important spawning site for diverse marine life and a critical global site for coral reef conservation. **In partnership with the World Wildlife Fund, CARE and local communities, The Nature Conservancy is working in the waters off the coast of Africa to establish the largest marine reserve in the Indian Ocean.**

By reducing overfishing around this cluster of islands, the marine reserve is intended to enhance the health of resources the ocean provides, including an **important nursery for prawns, one of Mozambique's major exports**. A healthy archipelago system of islands and estuaries will help to sustain local populations with food, sources of income from tourism and fishing, and ultimately support efforts to alleviate poverty.

**The reef resilience project in the Indian Ocean is one example of the Conservancy's climate adaptation work in Africa, where the impacts of climate change have been in**

the spotlight this week as Durban, South Africa hosts the United Nations COP 17 climate talks.



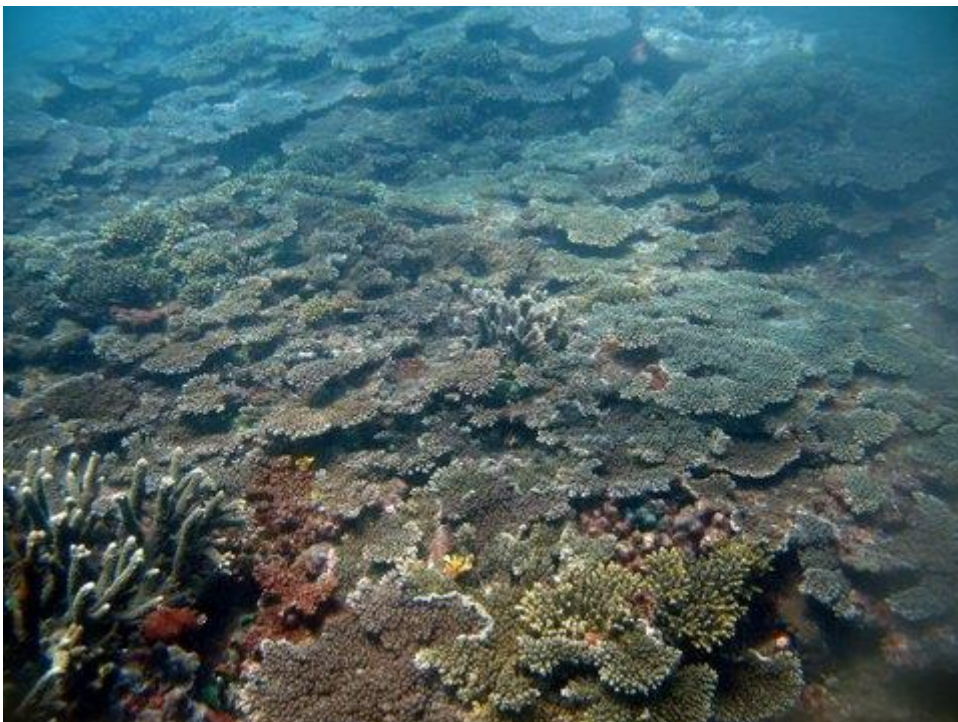
Matt Brown, the Conservancy's Africa Conservation Director, said **marine scientists conducted coral reef and fish assessments off Mozambique's coast in October 2010.**

"We tried to answer the questions: What is the impact of climate change-driven bleaching or warming events on the reef ecosystem? How much coral is killed and how does it respond? Is the bleaching so severe that it is fatal to the reefs?" Brown said.

The two photos below show the same Njovu reef in a one-year period. If you look carefully at the first photo, taken just after a bleaching event, you can see several areas of whiteness.



The second photo, taken a year later demonstrates very fast and healthy recovery of the reef from bleaching.



In general, the **Conservancy** has found that the reef system in the **Primeiras and Segundas Archipelagos** shows strong climate change resiliency, Brown said. The reasons appear to be the species of corals present, the cold water upwellings in the area that help to diffuse warm water, and the healthy current condition of the reef that enables it to bounce back quickly.

Using [reef resilience tools and principles](#) developed by **Conservancy scientist and coral expert Dr. Rod Salm**, the Africa program is designing strategies to protect the reefs

**here. They are also planning** to monitor the reefs and fish communities annually to track the impact of improved management and responses to bleaching caused by climate change-induced warming of the waters.

The reefs of the Primeiras and Segundas islands appear to be an important transition zone for coral distribution along the East African coast, supporting at least 140 different species of coral, and may merit further study and identification work by global experts who could train Mozambican scientists in coral taxonomy.

By protecting this reef system now, **coastal communities in northern Mozambique will reap dividends from nature's capital far into the future.**

*Lisa Hayden is a blogger for The Nature Conservancy*

*Photo by: © Eugen Joseph (Research diver doing coral survey).*

*Photo 2: © Louise Goggin (A dive boat hovers over a coral reef during an ecological assessment similar to those done on the northern coast of Mozambique).*

*Inset coral comparison photos by: © Rod Salm/TNC (Njovu reef during and after bleaching event)*