

Palau – coral reef protection

CASE STUDY

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Climate change threatens to destroy coral reef ecosystems. When reefs die, economic and food security is threatened, forcing people to move.

Coral reef ecosystems are home to an estimated one million species and are among the most productive ecosystems on the planet. They are critical for food supply; over a billion people rely on reef-related fisheries worldwide. In addition, reef-related diving and tourism provide billions of dollars of revenue each year. The impacts of climate change –

increasing ocean temperatures, ocean acidification, storm severity and sea-level rise – threaten to destroy coral reef ecosystems.¹ Unusual warming events have already caused massive coral bleaching throughout the world and the destruction of over one-third of the coral reef ecosystems of Palau, an island nation in the western Pacific.

“...the destruction of our coral reefs is tantamount to the destruction of our country.” Ambassador Stuart Beck of Palau, speaking to the UN Security Council on 17 April, 2007

Palau is attempting to adapt in several ways. Firstly, the people of Palau are protecting their reefs to increase resilience to climate change threats; healthier reefs are less likely to be destroyed by unusually high ocean temperatures than reefs under



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resources and 20% of land resources by 2020.² The project covers 9.6 million square kilometres of ocean and will help protect over half of all known species of corals.

Secondly, people in Palau and its International Coral Reef Center³ are researching factors that make certain reefs more resilient to temperature increases, as well as methods to help speed up the growth and recovery of reefs.

Thirdly, Palau has led international efforts to reduce non-climate change destruction and stress to coral reef ecosystems, working for example to ban bottom trawling, a destructive fishing practice that

destructive fishing practices and chemical run-off

- diversify food supply to include non-fish sources of food
- prepare emergency plans to provide temporary food aid for subsistence fishers and their families; coral bleaching can occur within a matter of weeks with especially high temperatures, and reducing pressures from fishing can help corals recover.
- develop bilateral and multilateral contingency plans to relocate people in case massive coral reef destruction threatens local economic and food security
- ensure local participation and support for such plans and, if possible, give people a choice for relocation options
- ensure that any relocation plans include provision for job training so that populations can remain self-sufficient after relocation.



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stress. Local dive shops collaborate with government and other environmental agencies to ensure that tourism leaves no negative impact and, following Palauan tradition, certain areas of the reef are restricted during times of ecological stress and higher temperatures.

Palau has been a leader in promoting sustainable fishing practices that help protect coral reefs and is working with the Marshall Islands, the Federated States of Micronesia, Guam and the Northern Marianas Islands to further protect coral reefs. Together they have created the Micronesia Challenge, agreeing to conserve 30% of near-shore marine

destroys coral reefs.

Finally, Palau has spear-headed efforts to raise international awareness regarding climate change threats to coral reef ecosystems, securing additions to draft texts and resolutions as well as raising the issue for debate in international fora such as the UN Security Council and General Assembly.

Countries with coral reef ecosystems need to:

- reduce non-climate stress to coral reef ecosystems, including



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and the Environment at the New York University Center for Global Affairs (www.scps.nyu.edu). The article and policy recommendations do not represent Palau's position.

1. IPCC Fourth Assessment Report, Working Group II, Summary for Policy Makers, 2007. www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf

2. Text at <http://cnmicoralreef.net/MC%20Declaration%20of%20Commitment.pdf> See also www.nature.org/success/art16924.html

3. www.picrc.org