

UNDP-GEF Ecosystems and Biodiversity Portfolio and Coral Reef Management
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The Importance of Coral Reefs for Protecting Livelihoods and Development

Marine ecosystems provide a range of vital services for over 500 million people worldwide, and support many of the world's poorest communities—particularly those reliant on mangrove and reef-based fisheries and tourism revenue for food security and livelihoods. Climate change has emerged as a significant, overarching and very real threat to the integrity and survival of these ecosystems globally; therefore the impacts of climate change are expected to have disproportionate implications for the poorest and most vulnerable communities, setting back much of the development progress of past decades.¹

According to the 2008 global assessment of the world's coral reef status², the world has effectively lost 19 percent of its original area of coral reefs; 15 percent are seriously threatened with loss within the next 10 to 20 years; and 20 percent are under threat of loss in 20 to 40 years as a result of a suite of anthropogenic and natural threats.³ Given these anticipated rates of ecological degradation, parallel urgent action is needed to develop understanding, motivation and capacity at all levels to manage the decline of coral reefs and related ecosystems in support of adaptation, and to adopt precautionary approaches that build resilience and lay the foundations for responding to future climate change scenarios.⁴

Contributions of UNDP-GEF Ecosystems and Biodiversity Portfolio to Coral Reef Management⁵

To address the urgent need to conserve and manage coral reefs, UNDP supports the development and implementation of Ecosystems and Biodiversity projects that contribute to the improved resilience, conservation and sustainable use of these ecosystems. With financing from the Global Environment Facility (GEF) and other donors, 17 projects in 15 countries—including Costa Rica, Mauritius, Jordan and Vietnam—are currently under implementation or preparing to start their work to reduce the threats to coral ecosystems. These projects address threats to coral reefs by creating and strengthening coastal and marine protected areas (MPAs), and by mainstreaming biodiversity conservation into production sector practices, all while involving local communities in their work.

A current project in India, for instance, takes a multi-sectoral and integrated systems approach to conserving the coastal biodiversity of the Gulf of Mannar. By supporting alternative livelihood and awareness programmes, this project has helped to transform the behaviours of local communities and fishermen; the changes in behaviour have, in turn, led to significant reduction in threats to marine resources, evidenced by a 7.5 percent increase in coral cover in the project area from 2006 to 2010.

In China, a project has contributed to significant improvements in the management capacity of four important MPAs, including the Sanya Coral Reef National Reserve. After receiving technical support from the project, MPA staff now: use biodiversity inventory data and GIS to monitor the distribution

¹ World Bank's Climate Change Framework Strategy (2008).

² Status of Coral Reefs of the World: 2008. www.gcrmn.org

³ The latter two estimates have been made under the Intergovernmental Panel on Climate Change's (IPCC) 'business as usual' emissions scenario, which does not consider the looming threats posed by global climate change or the potential positive benefits gained through effective future management.

⁴ Narsey Lal, P., Kinch, J., Wickham, F. (2009) Review of Economic and Livelihood Impact Assessments of, and Adaptation to, Climate Change in Melanesia.

⁵ NB The information in this section is taken from the annual implementation reports of the individual projects in the UNDP-GEF Ecosystems and Biodiversity Portfolio, which are not publically available. Therefore a traditional citation is not possible; I suggest using "UNDP-GEF Annual Performance Reports/Project Implementation Reports, 2010. Internal, unpublished documents."

and movement of key species; implement reef monitoring and reef check procedures; and employ coral transplantation methods.

Thus far, the ten projects addressing coral reefs currently under implementation have cumulatively impacted 88 PAs covering nearly 1.8 million hectares. The seven new UNDP-supported, GEF-financed projects—all of which directly focus on the conservation and management of threatened coral reefs that have the potential to enhance local livelihoods—will soon be starting in as many countries.

One of these projects will be establishing a sustainable PA system in Egypt, which will cover the significant marine biodiversity of the Red Sea and the endemic species of its coral reefs. In Cuba, a new project will aim to build the capacity for the application of a regional approach to the management of marine and coastal PAs in the Southern Archipelagos Region; this area is of major regional importance for ecosystem function and for the sustainability of fisheries stocks and populations of globally important biodiversity.