



# CARIBBEAN MARINE BIODIVERSITY PROGRAM Overview

**T**he Caribbean Marine Biodiversity Program is a five-year project (2014-2019), funded by the U.S. Agency for International Development and The Nature Conservancy, that aims to achieve sustained biodiversity conservation, maintain and restore critical ecosystems and realize tangible improvements in human and community wellbeing. Operating in five target countries—Dominican Republic, Grenada, Haiti, Jamaica and St. Vincent & the Grenadines—the Program focuses on creating and effectively managing marine conserved areas and establishing and promoting sustainable fisheries. By addressing direct and indirect threats to coastal and marine biodiversity, the Caribbean Marine Biodiversity Program works to ensure a sustainable future where nature and people can thrive.





## PROGRAM GOALS ACROSS FIVE TARGET COUNTRIES

- Establish effective, functional marine conserved areas and sustainable fisheries
- Protect and successfully manage at least 3.9 million hectares of nearshore coastal and marine habitat
- Establish reliable funding for marine and coastal conservation through the Caribbean Biodiversity Fund—an endowment fund providing long-term financial support for conserved area management today and into the future
- Demonstrate sustainable fishing practices and alternate livelihoods to benefit hundreds of fishers and community members
- Establish relationships with key private sector companies that promote ecotourism in support of marine conservation efforts

## Why the Caribbean Marine Biodiversity Program Was Created

The Caribbean is one of the world's most biologically diverse marine regions, with over 12,000 marine species, 10% of the world's coral reefs and 13,000 plant species. Nearly 44 million people from 37 different countries and territories call the Caribbean their home, spanning many diverse origins, languages and cultures. Yet, the Caribbean Sea is widely recognized as one large marine ecosystem—a shared resource connecting many islands that requires multinational collaboration in order to preserve the essential biodiversity on which millions of lives in the Caribbean depend.

A healthy economy and a sustainable future for the Caribbean are not possible without thriving marine and coastal environments. Clean beaches, vibrant coral reefs and nature-based recreation support the tourism industry, the cornerstone of the Caribbean economy. Strong fish stocks support the equally important fishing industry, as well as provide food security for millions. Healthy coral reefs and mangroves are critical for the protection of coastal communities and infrastructure against the impacts of climate change like erosion and flooding.

However, these vital marine and coastal resources face growing threats, including overfishing, a changing climate and unsustainable tourism and development. Due to these threats:

- Over 75% of coral reefs in the Caribbean are categorized as degraded or threatened
- 50% to 80% of living coral cover in the Caribbean has been lost in the past 30 years
- All the major commercially important fish and other species in the region (such as lobster, conch and grouper) face intense fishing pressures, with overexploitation of these species seen in several countries
- The region has seen a significant loss of mangroves, particularly in areas where coastal tourism is growing

COVER Sandy Island/Oyster Bed Marine Protected Area in the Grenadine Bank © Marjo Aho THIS PAGE LEFT TO RIGHT Fishermen in Haiti with the day's catch © Tim Calver; Healthy Elkhorn Coral in the Sandy Island/Oyster Bed Marine Protected Area, Grenadine Bank © Marjo Aho





## How the Program Works

The Caribbean Marine Biodiversity Program aims to preserve marine biodiversity in the Caribbean not just through protection of marine and coastal environments, but through their effective management. The Program emphasizes sustainable use of the marine and coastal resources on which local economies and communities depend, along with the establishment of long-term, reliable funding to support marine conservation initiatives and management into the future.

**Through the Caribbean Marine Biodiversity Program, focused marine conservation action takes place on four key levels.**

### REGIONAL LEVEL

The Program supports the Caribbean Challenge Initiative, a collaborative effort throughout the region in which countries and territories commit to conserve and effectively manage at least 20% of their marine and coastal environment by 2020—an ambitious goal that will result in lasting conservation advancements in the Caribbean at an unprecedented scale. In addition, the Program supports the Caribbean Biodiversity Fund, which provides sustained endowment funding that allows Caribbean Challenge Initiative member countries to achieve and maintain their conservation commitments.

### NATIONAL LEVEL

The Caribbean Marine Biodiversity Program helps to establish and secure funding for National Conservation Trust Funds within each of the five target countries. These trust funds draw on revenue from the Caribbean Biodiversity Fund, which governments must match via sustainable mechanisms in each country (such as tourism fees), to carry out on-the-ground conservation initiatives and manage marine conserved areas effectively.

The Program also works closely with government agencies to help bring about the adoption of national fisheries policies that catalyze and advance sustainable fishing operations in targeted seascapes and beyond. These efforts are designed to help governments achieve their international conservation commitments.

### SEASCAPE LEVEL

The Caribbean Marine Biodiversity Program is working in targeted seascapes (large areas containing significant marine resources and habitats that are a critical priority to conserve and manage) to develop comprehensive, customized fisheries action plans that provide a blueprint for achieving a sustainable fishing industry. Action plans are based on in-depth fisheries assessments including consultations with local stakeholders and analysis of key data. In addition, the Program develops and implements marine spatial plans, which delineate zones for protected areas as well as for sustainable development activities, such as fisheries and ecotourism.



Along with these action and zoning plans, the Program designs and promotes demonstrations on sustainable fishing practices and alternative livelihood options. Aimed at fishers and community members, demonstration topics include: shifting from reef fish to invasive lionfish (both as fishers and consumers), shifting from fishing to sustainable aquaculture (such as farmed sea moss), using fishing gear that reduces habitat damage and unintended fish catch, and pursuing ecotourism-related and other alternative livelihood options that reduce pressure on fish stocks.

Recognizing that fishers themselves are key to shifting the industry toward sustainability, the Program strives to strengthen fisher associations and increase their capacity to support policy reform, fish sanctuaries and marine conserved areas. To reinforce these efforts, the Program also facilitates outreach activities by marine conserved areas and national parks, in order to raise awareness within fisher associations and communities about the importance of conserving marine and coastal resources.

### SITE LEVEL

On-the-ground management of marine conserved areas and fish sanctuaries is essential to achieving conservation goals. The Caribbean Marine Biodiversity Program provides financial support and training for staff at conserved areas and fish sanctuaries. In addition, the Program implements a range of activities to ensure effective management, including patrol and monitoring plans and coral reef and fisheries assessments.

The Program also builds local constituencies for conservation by launching outreach campaigns within the communities surrounding marine conserved areas and fish sanctuaries. Through social media, promotional materials and public events, the Program is helping to accelerate awareness about marine conservation and connect local advocates with projects that directly benefit their communities.

## Where the Program Works

### DOMINICAN REPUBLIC

Samaná Bay is the largest semi-enclosed bay in the Caribbean, over 75,000 hectares, and contains the most extensive mangroves and shrimp fisheries in the country. The bay is also the most important sanctuary for humpback whales in the North Atlantic, serving as critical calving and nursery grounds, and whale watching provides a substantial contribution to the local economy. Approximately 2,000 fishers depend on the bay for their livelihood and as a source of food for their families, however unsustainable fishing practices have significantly depleted fish stocks.

To reduce threats to marine biodiversity in Samaná Bay, The Nature Conservancy and the Center for Conservation and Eco-Development of Samaná Bay and Its Surroundings (CEBSE), are actively working with collaborating partners to protect critical fish habitat, establish new locally managed marine conserved areas and promote the growth of ecotourism to foster alternative livelihoods. The Caribbean Marine Biodiversity Program supports the Marine Mammal Sanctuary Banks of La Plata and La Navidad, which help protect the humpback whale population and other marine species. The Program also supports Los Haitises National Park and Manglares del Bajo Yuna National Park, which wrap around part of Samaná Bay and shelter a large mangrove forest.

### HAITI

The North Coast of Hispaniola seascape covers approximately 200,000 hectares, and includes the northeast coast of Haiti and the area of Monte Cristi, along the northwest coast of the Dominican Republic. This rural area is characterized by extreme poverty, with limited livelihood and income options. Over 2,000 fishers rely on this seascape, using small wooden boats to fish for virtually all species available, including juvenile fish. With this kind of intense pressure, fish stocks have sharply declined, and the loss of some key fish species has adversely impacted the health of coral reef ecosystems.

LEFT TO RIGHT Sandy Island/Oyster Bed Marine Protected Area in the Grenadine Bank is home to many species of seabirds and marine life. © Marjo Aho; Union Island in the Grenadine Bank © SusGren; A day's catch in Haiti often consists of juvenile parrotfish. © Tim Calver





In 2014, the Government of Haiti created Three Bays National Park, which encompasses approximately 80,000 hectares and contains some of Haiti's most extensive and healthy coral reefs and mangroves. The Nature Conservancy and the Foundation for the Protection of Marine Biodiversity (FOPROBIM), along with collaborating partners, are focused on strengthening the management of conserved areas, increasing community outreach, implementing sustainable fishery demonstration programs and promoting cross-border fisheries governance within the seascape shared by Monte Cristi and Three Bays.

## JAMAICA

Pedro Bank and the southwest coast of Jamaica form a seascape that relies more heavily on fishing as a livelihood than any other part of the country, with limited alternative livelihood options. Pedro Bank—about 50 miles offshore but with strong community ties to the southwest coast—is an 800,000-hectare marine area with some of the most extensive and healthy coral reefs in Jamaica. It represents one of the most important lobster fisheries and the largest source of queen conch anywhere in the Caribbean. The conch fishery provides income and livelihoods for several hundred fishers and generates about US\$8 million each year in export earnings.

The Southwest Cay Fish Sanctuary was established on Pedro Bank in 2012 to help replenish and maintain healthy fish stocks. Since then, The Nature Conservancy and the Caribbean Coastal Areas Management Foundation (C-CAM), along with collaborating partners, have supported community outreach and monitoring activities in the region. A comprehensive marine spatial plan for Pedro Bank was completed in 2015, which included delineated zones for new fish sanctuaries and sustainable fishing operations.

Two fish sanctuaries were designated in 2009 at Galleon, St. Elizabeth and Bluefields Bay on Jamaica's southwest coast, which is historically and culturally rich and has experienced

a rise in tourism in recent years. The Conservancy and our partners at Bluefields Bay Fishermen's Friends Society have raised community awareness of the benefits of fish sanctuaries and have supported local community wardens to monitor and manage sanctuary activities. The Caribbean Marine Biodiversity Program is also promoting alternative livelihood initiatives focused on growing tourism-related, sustainable options that will help reduce fishing pressures in Bluefields Bay. In Galleon, the Program is supporting the organization that manages the sanctuary, BREDS Treasure Beach Foundation, to enhance its outreach efforts.

## GRENADA AND ST. VINCENT & THE GRENADINES

The Grenadine Bank seascape comprises an archipelago with over 30 islands and cays shared by the nations of Grenada and St. Vincent & the Grenadines, and supports the most extensive coral reefs and related marine habitats in the southeastern Caribbean. Approximately 10,000 people call these islands home, and at least 30% of the population lives in poverty. These coastal communities rely heavily on the health of the surrounding marine ecosystems for their livelihoods, income and food. But the marine and coastal biodiversity in this seascape faces a myriad of threats, including loss of habitat from unsustainable development, overfishing, land and marine sources of pollution, climate change and invasive species.

The Caribbean Marine Biodiversity Program supports two core marine conserved areas in the Grenadine Bank—the Tobago Cays Marine Park in St. Vincent & the Grenadines and Sandy Island/Oyster Bed Marine Protected Area in Grenada. The Conservancy and Sustainable Grenadines (SusGren), along with collaborating partners, are actively working to provide the tools needed for effective management of these areas, in order to protect marine habitat, promote sustainable fisheries and support alternative tourism-based livelihoods.

LEFT TO RIGHT Southwest Cay Special Fisheries Conservation Area, Pedro Bank, Jamaica © *Brandon Hay*; A Spiny Lobster in the Sandy Island/Oyster Bed Marine Protected Area, Grenadine Bank © *Marjo Aho*; Whale watching and other tourism-related activities provide alternative livelihood options in Samaná Bay, Dominican Republic. © *CEBSE*

## WHO IS INVOLVED

The Caribbean Marine Biodiversity Program is funded by the U.S. Agency for International Development, with The Nature Conservancy providing additional financial support and serving as the lead implementing organization for the Program. There are four local non-governmental organization partners linked to each of the target countries, spearheading on-the-ground activities:

- Caribbean Coastal Areas Management Foundation (C-CAM) in Jamaica
- Center for Conservation and Eco-Development of Samaná Bay and Its Surroundings (CEBSE) in the Dominican Republic
- Foundation for the Protection of Marine Biodiversity (FOPROBIM) in Haiti
- Sustainable Grenadines (SusGren) in Grenada and St. Vincent & the Grenadines



Tobago Cays Marine Park in the Grenadine Bank © SusGren





## COLLABORATING PARTNERS

The Program works closely with national and local governments, fisher associations and the following collaborating partners:

- Caribbean Biodiversity Fund
- Caribbean Challenge Initiative Secretariat
- Dominican Republic Center for Marine Conservation – Autonomous University of Santo Domingo
- National University of Haiti – Limonade Campus
- RARE
- Reef Check – Dominican Republic

## PRIVATE SECTOR PARTNERS

In addition, the Program is engaging private sector companies across the Caribbean to mobilize funding, raise consumer awareness and stimulate changes in business practices to benefit conservation. Partners in the private sector include:

- Royal Caribbean Cruise Ltd.
- Sandals Resorts International
- Virgin Holidays



Mangrove seedlings are planted in the Dominican Republic to help rebuild forest and provide protection against coastal erosion. © CEBSE



Fishing boats line a shore on the south coast of Samaná Bay, Dominican Republic © Mark Godfrey

## FOR MORE INFORMATION ON THE CARIBBEAN MARINE BIODIVERSITY PROGRAM, PLEASE CONTACT

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