



# Adaptive Reefscapes

## A Conservation Blueprint for Coral Reefs



CORAL REEF  
ALLIANCE



# The World Needs Coral Reefs— for Food, for Jobs, for Recreation

Corals are extraordinary animals, and the reefs they build are one of the most diverse and valuable ecosystems on the planet. Today, a startling 75 percent of our coral reefs are threatened or gone.

Imagine the world without corals. Sand and rubble would replace the vibrant architects of the reef, such as staghorn and table corals. The underwater homes of brightly colored parrotfish, butterflyfish and angelfish would be lost amongst the overgrown seaweed. Livelihoods would diminish as coasts erode, fisheries fail, and tourism declines.

But there is hope. Corals can adapt to changing conditions. The Coral Reef Alliance (CORAL) has designed an innovative conservation blueprint based on cutting-edge science that promotes coral adaptation within diverse, connected and large networks of healthy reefs. We call these networks Adaptive Reefscapes.

**Coral reefs need people like you to help protect the two million marine species and five hundred million people that depend on them.**

**We can save coral reefs.**

# ALL REEFS THREATENED BY 2050

## The Coral Crisis

We need coral reefs, but they—and the benefits they provide us—are at great risk.

Rising sea temperatures and increased ocean acidity caused by climate change leave corals vulnerable. When global stressors combine with local threats such as overfishing, water pollution and development, it severely compromises the ability for corals to grow, reproduce and thrive.

30%

increase in ocean acidity since the Industrial Revolution

27%

of the world's coral reefs are gone

109

countries have coral reefs

93

countries have coral reefs that are damaged or completely destroyed

\$400B

per year in food and tourism is in jeopardy

## Coral Conservation in Times of Change: *Adaptive Reefscapes*

There is hope for coral reefs. Scientific research shows that corals can adapt to changing conditions. For example, some corals thrive in murky river mouths while others flourish in warm-water lagoons. These special corals and their offspring are the next generations of reef-builders.

**Together, we can ensure that reefs thrive for generations to come.**

The Coral Reef Alliance has launched a new era of coral reef conservation that will help corals adapt to rapid environmental change. At the heart of our work are Adaptive Reefscapes, networks of effectively managed reefs that help corals adapt to climate change.

*Reef-building corals are the foundation of coral reef ecosystems. Their skeletons provide homes for the millions of species that live on reefs.*



# Adaptive Reefscapes are Diverse, Connected and Large

DIVERSE

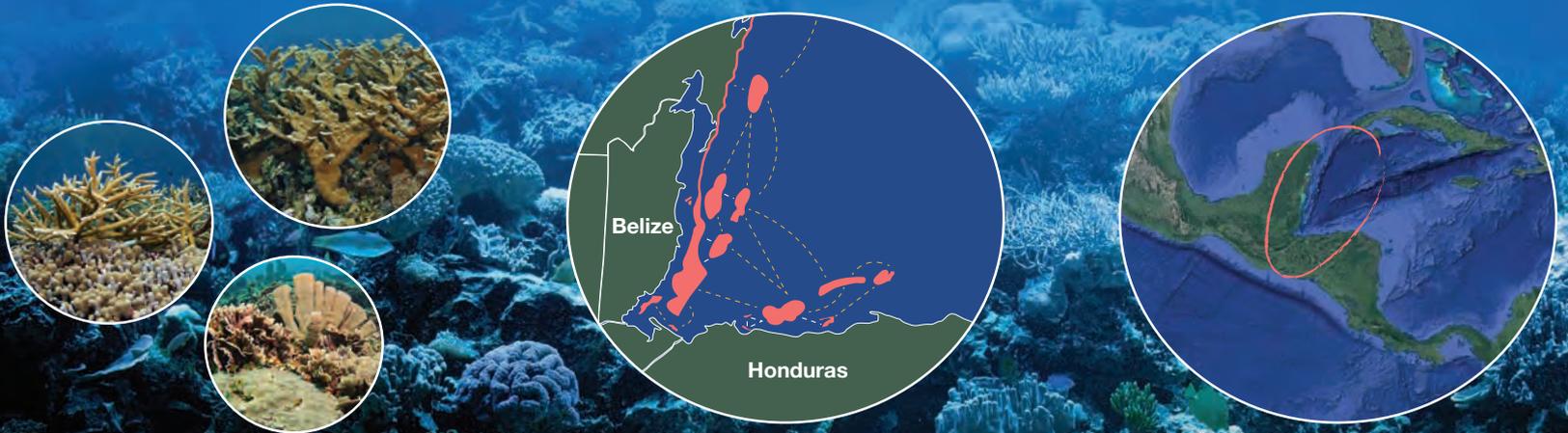
Adaptive Reefscapes include many types of reefs, habitats, species and genes. We safeguard DIVERSITY to preserve options for an unpredictable future.

CONNECTED

Rapid adaptation requires a CONNECTED network of reefs. Well-adapted corals can spread between different healthy reefs and repopulate degraded reefs.

LARGE

Small networks of reefs are vulnerable to a single disturbance such as a storm or a disease outbreak. LARGE networks of reefs protect against losing everything all at once.



# Our Adaptive Reefscapes Blueprint

Making *Adaptive Reefscapes* a reality requires a blueprint that can be replicated around the world. This blueprint includes a series of steps that we follow whenever we begin work in a new region.

## Develop a Regional Plan

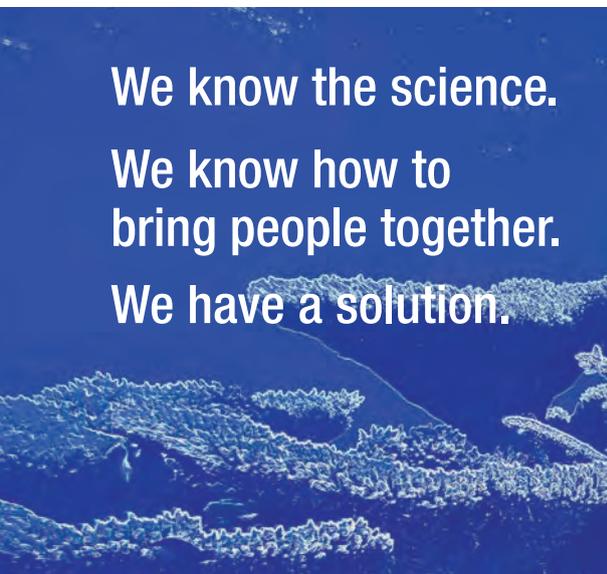
- Assess the work already happening within a region
- Draw on cutting-edge science to strategically identify where and how to invest our resources
- Unite communities, government leaders, organizations, and philanthropists around a regional plan to save coral reefs

## Establish Networks of Healthy Reefs

- Work directly with local communities to reduce threats to key reefs in ways that provide tangible benefits to people
- Create partnerships and alliances to enhance conservation work that is already underway
- Engage policymakers and government officials to create legal support for reef protections

## Refine, Exit and Repeat

- Assess our progress and refine our work based on new information
- Ensure local leaders have the capacity, tools, autonomy and financial support they need for long-term success
- Share findings with a global network of partners to apply our blueprint around the world



**We know the science.  
We know how to  
bring people together.  
We have a solution.**

## Our Blueprint in Action

To save coral reefs we must act quickly.

We have already started, and by 2019 *Adaptive Reefscapes* will be in progress in four key coral reef regions. Success in these regions will provide a proven blueprint for coral reef conservation globally.

The world has approximately 100 reefscapes. Our goal is to ensure that at least 50 *Adaptive Reefscapes* are implemented by 2050 across the globe.

This will only happen with the support of people like you.

**Join us. Be a part of the solution.**

## Partnerships are the foundation of our success.

Daine Wood Etches, Community Member, Honduras

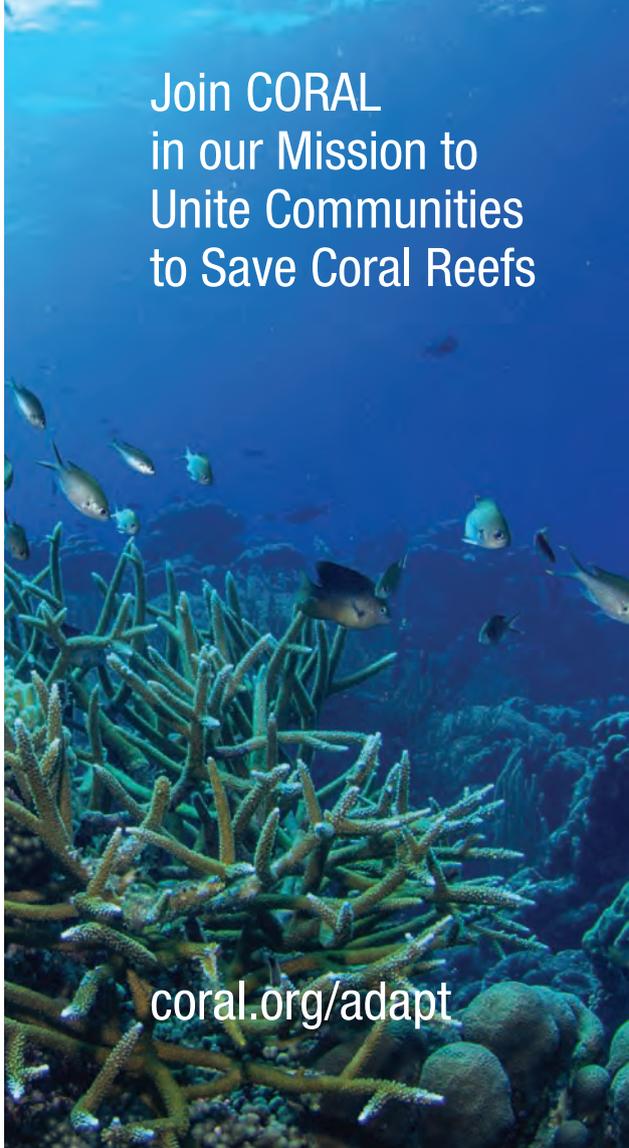
*“ In West End Roatan, CORAL has helped connect 128 homes and businesses to a sewage treatment plant. We’ve already seen the positive effects that it has brought—the periodic water quality testing results show us. I’ve heard reports of more wildlife. Anyone who goes out will tell you they see turtles and so many more fish. The lobster, the conch, the fish—it’s been a long time since we’ve experienced so many. ”*

Mary Turnipseed, Gordon and Betty Moore Foundation

*“ Through a project that connects cutting-edge science with on-the-ground conservation, CORAL is spearheading a new approach to managing coral reefs for their adaptation potential. This bold project will explore how entire communities of organisms can adapt to global change, and it has the potential to improve the outlook for coral reefs and many other ecosystems. This project could be a real game-changer for conservation. ”*

Jennifer Keck, Founding Board Member, Roatan Marine Park

*“ Thanks to CORAL’s support, we have increased our capacity to bring in funds for our management activities. As a result, we have grown from patrolling the Sandy Bay West End Marine Protected Area to patrolling Cordelia Banks, and have plans to enforce regulations around the entire island of Roatan. Now, we can advise other communities on how to establish effective management programs that operate autonomously. ”*

An underwater photograph showing a vibrant coral reef. The water is clear and blue. In the foreground, there is a large, branching coral structure. Several small, dark-colored fish are swimming around the coral. The background shows more coral and fish, creating a sense of depth and a healthy marine ecosystem.

Join CORAL  
in our Mission to  
Unite Communities  
to Save Coral Reefs

[coral.org/adapt](https://coral.org/adapt)