



# A Conservation Decade for Tropical Oceans





# Our Oceans Are in Crisis

Nowhere is this more evident than in the tropics, where images of tropical paradise fade in the face of current threats. Poorly planned coastal and watershed development, destructive fishing practices, pollution, and climate change are destroying fragile coral reefs and mangrove ecosystems. Subsidized fishing fleets are depleting marine food webs. And fisheries that target shark, sea turtles, and grouper are removing key species and top-level predators critical to the diversity and stability of marine life.

These threats gravely endanger valuable marine resources and ecological systems that have long sustained the livelihoods and well-being of much of the world's population, including once-vital coastal communities. Recent statistics underscore the severity of these trends: Two-thirds of fish stocks that supply the global market have been overexploited or fished to maximum capacity; more than half of the world's coral reefs are threatened by human activity; and close to one-fifth of Southeast Asia's reefs have been damaged or destroyed by coral bleaching.



HORSE-EYE JACK SCHOOL | TONY RATH/WWF

## The Conservation Decade for Tropical Oceans

At the heart of this large-scale conservation initiative are the tropical marine ecoregions where WWF has been expanding programs over the past five years. WWF will build on these successes to preserve critical marine habitat and biodiversity throughout the world's rich, tropical oceans. In the new, decade-long initiative, WWF and our partners will expand the number of protected areas to encompass all types of tropical marine biodiversity; link the protected areas in functional networks that sustain large-scale ecological and evolutionary processes; foster a political environment that ensures that marine protected areas are nested within effectively managed marine and coastal seascapes; and share lessons and facilitate effective coordination to better inform future action.

The survival of fish species, such as these horse-eye jacks, relies on the diversity of plant and animal life in the world's tropical oceans – a diversity now gravely in danger.

## WWF: Meeting the Crisis Head-On

### New Paradigms in Action: WWF in the Gulf of California

WWF and our partners are leading the development of new science-based paradigms for designing marine protected areas and networks. The focus: taking into account local and regional concerns in order to safeguard marine ecosystems from the major threats they face, now and into the future. Recently WWF's Gulf of California program and partners from Scripps Institution of Oceanography designed one of the first science-based networks of marine protected areas by using field data on spawning sites and the flow of species across sites. Future efforts will include more field testing of adaptive management strategies for marine and coastal systems in light of chronic global threats; better understanding of options for restoring habitats; and analysis of the links between human and marine systems.



CARIBBEAN CORAL REEF | SANDY GOODMAN

*Coral reefs in the Caribbean and other tropical oceans are threatened by global dynamics such as climate change and overfishing.*

In order to reverse devastating global trends, there is an urgent need to implement a bold new strategy for conserving the rich biodiversity of our tropical oceans. WWF's vision for the tropical oceans is to stop the steep decline of marine life, restore and protect biological wealth, and safeguard the vast, complex ecological processes that support life in the ocean. Marine protected areas are the most effective way to preserve biodiversity within individual sites. However, most of the marine protected areas that do exist are isolated and are too small to protect critical breeding, feeding, and nesting areas. That is why WWF, working with our partners around the world, is creating the Conservation Decade for Tropical Oceans to link individual marine reserves in stable, self-sustaining ecological networks that safeguard the characteristics of each region's biodiversity while increasing the benefits to both local communities and people around the globe.

## The Strategy for Success

To take marine conservation to the level where it can reverse global trends it is critical that we shift our thinking to larger scales of conservation action. Marine protected areas, coastal zone management, and fisheries management are the primary technical tools for protecting marine resources and biodiversity, yet only a fraction of the world's oceans benefit from these methods today. Reaching larger scales of action calls for new developments in marine science, attention to the social and economic contexts surrounding the areas targeted for conservation, and development of long-term partnerships to ensure enduring success.

### Raising the Bar with Sophisticated Science

Designing, establishing, and managing networks of marine protected areas is a large-scale conservation initiative — one that calls for a new level of sophistication in marine conservation science, expanded field study and analytic research, and new, science-based paradigms for rebuilding living systems. WWF is meeting this challenge by working with the world's leading marine science institutions to

- set priorities for future work based on both the biodiversity values of marine ecosystems and understanding the impact of current threats;
- develop the science to design marine protected area networks that maintain large biological and ecological systems;
- provide adaptive management strategies to tackle the most serious threats facing the marine ecosystem, specifically unsustainable fisheries, climate change, pollution, and increasing coastal populations; and
- understand how to restore the health of marine ecosystems that are already damaged.



## Addressing Social and Economic Contexts

Many threats to coral reefs and other tropical marine ecosystems stem from global dynamics such as climate change and expanding consumer demand for marine resources. Saving our oceans from these threats will require building a framework that addresses the social and economic impacts on marine biodiversity. It will call for multidisciplinary actions ranging from on-the-ground projects to market reform. Redesigning policy, expanding community outreach and education programs, and developing economically viable incentives to reduce destructive activities are also necessary components for supporting successful marine protected areas.

## Building Partnerships for Lasting Results

For the past 40 years, WWF has built a strong network of partners around the globe including local communities, governments, and conservation organizations, as well as key groups from the development and economic sectors. Through the Conservation Decade for Tropical Oceans, WWF will continue to build and strengthen these partnerships by bringing together the world's leading marine conservation practitioners and scientists, community development experts, and policy makers. With an established presence in the world's key marine regions, and a track record of success in creating effective partnerships for conservation, WWF is well positioned to lead such an effort.

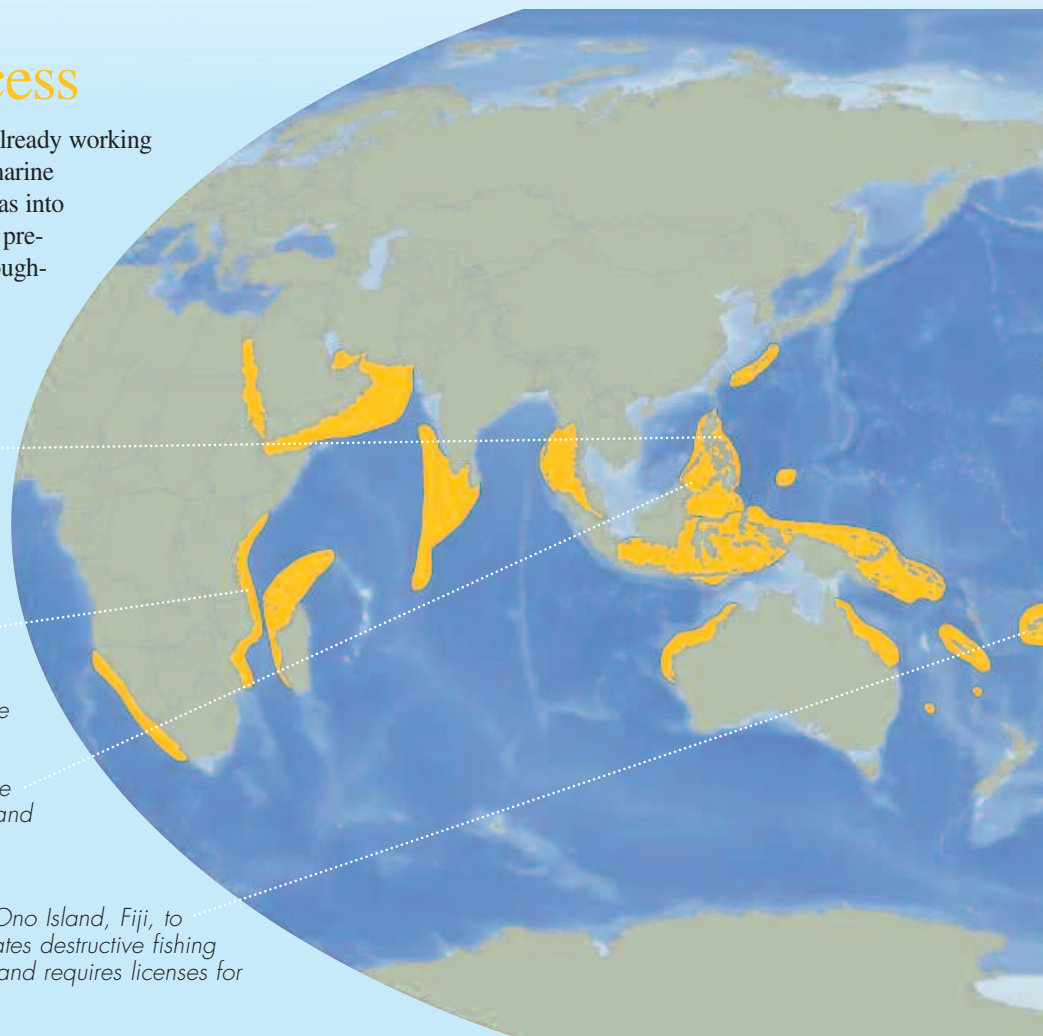
## Marine Protected Areas

A decade ago, the idea of marine protected areas sounded good ... and today we have the proof. Fully protected marine reserves enhance the production of offspring to restock fishing grounds ■ allow adults and juveniles to spill over into fishing grounds with depleted stock ■ provide a refuge for vulnerable species ■ prevent habitat damage ■ promote development of natural biological communities and ■ facilitate recovery from catastrophic human and natural disturbances. Looking at networks of marine protected areas, we focus on the potential to safeguard the natural processes of the oceans ■ magnify the biological benefits and ■ further integrate the reserves into environments that provide socioeconomic benefits.

## Building on the Foundations of Success

WWF and other conservation organizations are already working in many of the world's most important tropical marine regions. By linking isolated marine protected areas into functional networks, WWF and our partners will preserve critical marine habitat and biodiversity throughout the world's rich, tropical waters. This map highlights some of WWF's work as examples of the foundations for success underlying WWF's Conservation Decade for Tropical Oceans.

- Destructive fishing practices and poaching in Anilao and Tubbataha Reef in the Philippines have been reduced through the increased patrolling, enforcement, and educational activities of WWF's Sulu-Sulawesi Environmental Protection Crusade.
- Following a 10-year campaign by WWF, in 2001 the Mozambique Council of Ministers doubled the size of Bazaruto Archipelago National Park, making it one of the largest marine protected areas in the Indian Ocean.
- WWF supported the establishment of the Turtle Islands Protected Area between the Philippines and Malaysia, the world's first transboundary marine turtle sanctuary.
- WWF has worked with all seven villages on Ono Island, Fiji, to establish a marine conservation area that eliminates destructive fishing practices, bans turtle killing and egg collection, and requires licenses for all fisheries.

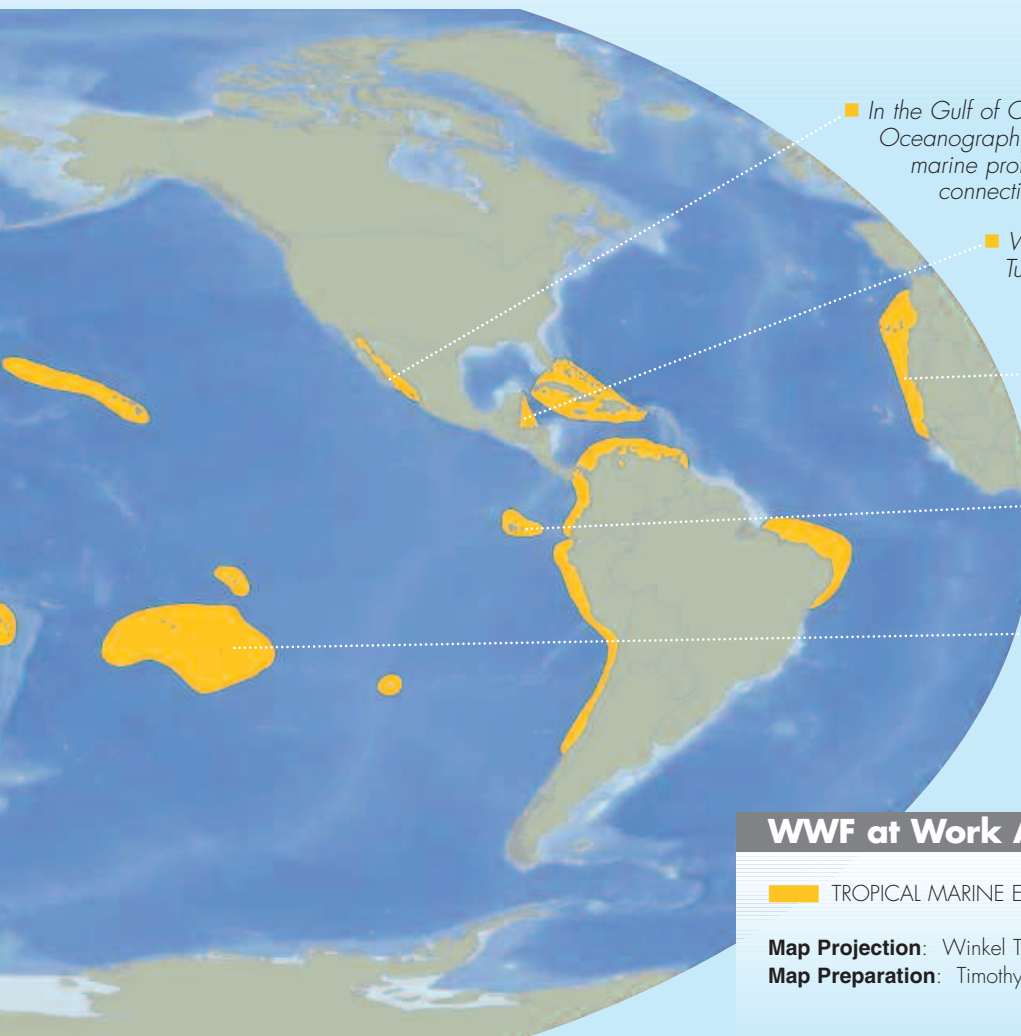


The 320 islands in Fiji are surrounded by a diverse and fragile ocean environment that includes barrier and fringing coral reefs and mangroves.



Fiji Coral Reef | WWF-CANON/CATHERINE HOLLOWAY

YOUNG GIRL, PUNTO MANAMBIQUE RESERVE GAUTE | DENNIS QUICK



- In the Gulf of California, WWF and Scripps Institution of Oceanography have designed one of the first science-based marine protected area networks using field data on connectivity and spawning sites.
- WWF designed the implementation plan of the Tulum Declaration, in which four nations agreed to manage the Mesoamerican Reef system as a single ecosystem.
- In the Banc d'Arguin National Park in Mauritania, WWF and park staff are working to reduce overfishing of mullet and sharks in Africa's largest marine park.
- In the Galápagos, WWF helped enact the Special Law that created a 40-mile-wide marine sanctuary in which industrial-scale fishing is prohibited.
- In the Cook Islands, WWF and Rarotonga Island chiefs have helped to re-establish a traditional form of reef lagoon management involving a rotating schedule of closing areas to fishing and marine harvesting.

## WWF at Work Around the World

■ TROPICAL MARINE ECOREGIONS

**Map Projection:** Winkel Tripel

**Map Preparation:** Timothy Green, WWF Conservation Science Program



## Financial Tools for Sustained Success

Ensuring the success of the Conservation Decade for Tropical Oceans will require a financial investment unparalleled in the history of marine conservation. Long-term sustainability can be achieved only if mechanisms are put into place to ensure a consistent flow of funding for conservation activities. WWF is an acknowledged leader in formulating financial solutions to pressing conservation needs. Either through the use of conservation finance tools such as debt-for-nature swaps and trust funds, or new and innovative market-based initiatives and user fees, WWF will put in place appropriate financial tools to address the wide variety of needs associated with the development and maintenance of networks of marine protected areas.

## WWF's Conservation Decade for Tropical Oceans

Building on work already under way, the Conservation Decade for Tropical Oceans is WWF's global effort to protect and conserve the full extent of marine biodiversity in the tropics. We are focusing our creativity – and that of our global and local partners – on a strategic and comprehensive program to establish functional networks of marine protected areas and to ensure their future.



GRUNTS ON CARIBBEAN CORAL REEF | ANJA G. BURNS

*The comprehensive scale of WWF's marine conservation work encompasses protecting remaining healthy coral reefs and reducing risks such as carbon dioxide emissions that cause global warming, which in turn threatens the survival of species such as these grunts in the Caribbean.*

We face a great and urgent global ocean crisis. And yet, we face an equally great opportunity to turn the tide on impending extinction. Cutting-edge marine science is leading the way in designing the networks and directing the ongoing adaptive management of the comprehensive program, individual projects, and site-level activities. Also critical to our success is the continued support of local communities who understand and value their role in conserving and restoring the resources on which they depend.

With a 40-year track record of conservation success, working at ever-increasing scales of breadth, depth, and complexity, WWF is the conservation organization best able to bridge the concerns of local communities and policy makers and to build on a foundation of solid marine science. Through the Conservation Decade for Tropical Oceans, we will safeguard existing tropical marine life in the near term, while we put in place the human and financial capacity to maintain healthy tropical ocean resources well into the future.

### For More Information

To find out more about our Conservation Decade for Tropical Oceans, contact one of the following people at WWF in Washington, D.C.

#### Scott Burns

WWF Marine Program  
202-778-9547  
[scott.burns@wwfus.org](mailto:scott.burns@wwfus.org)

#### Ghislaine Llewellyn

WWF Conservation Science Program  
202-778-9793  
[ghislaine.llewellyn@wwfus.org](mailto:ghislaine.llewellyn@wwfus.org)

#### Adam Tomasek

WWF Endangered Spaces Program  
202-778-9617  
[adam.tomasek@wwfus.org](mailto:adam.tomasek@wwfus.org)

#### Carolyn Gray

WWF Corporate and Foundation Relations  
202-778-9735  
[carolyn.gray@wwfus.org](mailto:carolyn.gray@wwfus.org)



### Cover Photos

FISHERMEN WITH NETS, BAZARUTO ISLAND, **WWF-CANON/FREDERICK J. WEYERHAEUSER**; INDONESIA PARK GUARD AND WWF OFFICER, SULAWESI, **WWF-CANON/ALAIN COMPOST**; FISHERMAN ON BOAT, BAZARUTO ISLAND, MOZAMBIQUE, **WWF-CANON/FREDERICK J. WEYERHAEUSER**; YOUNG GIRL, PUNTO MANAMBIQUE RESERVE GAUTE, **DENNIS GLICK**; WOMEN IN MARKET, ANILAO BAY, PHILIPPINES, **BILL EICHBAUM/WWF**; INDONESIA PARK GUARD AND WWF OFFICER, SULAWESI, **WWF-CANON/ALAIN COMPOST**; BOY, SOLOMON ISLANDS, **WWF-CANON/SOH KOON CHNG**; GLASSY SWEEPERS AT CORAL HEAD, INDO-PACIFIC OCEAN, **WWF-CANON/JÜRGEN FREUND**

## WWF's Ocean Rescue

### A Force for Nature ... A Future for the Planet's Oceans

Life on Earth depends on healthy oceans — from coral reef communities teeming with life to mangrove swamps that provide a home for thousands of species. Our planet's oceans are in trouble and the plant and animal life they sustain are in jeopardy. As the global leader in safeguarding these marine ecosystems, WWF aims to achieve a bold new goal in the next 10 years: The creation of stable marine networks that encompass 100 marine protected areas worldwide. At the same time, we will continue our landmark efforts to end destructive fishing practices, stop illegal trade in marine wildlife, and reduce pollution on land and sea. WWF's Ocean Rescue also promotes innovative market incentives for responsible fishing and works to reform government policies that undermine the ocean's web of life.



WWF's large-scale marine conservation initiative will protect plant and animal species in tropical oceans around the world.

HERMIT CRAB | WOLCOTT HENRY

We are actively protecting marine habitats in polar, temperate, and tropical regions in Asia, Africa, Latin America, and the United States. In places as diverse as the coast of Tanzania, the Sulu Sea off the Philippines, and the Florida Keys, WWF has been working with local partners to set up dozens of marine protected areas to conserve precious habitats and the species they contain, such as whales, sea turtles, sharks, sturgeon, and tuna. Of particular importance are the coral reefs, which are home to some of the most fascinating plant and animal life in the world and a wealth of resources for local communities and the world. Coral reefs, and the shallow, warm tropical oceans that surround them, rival rain forests in richness of biodiversity. To preserve this richness, WWF is implementing a bold new strategy for conserving tropical marine biodiversity — the Conservation Decade for Tropical Oceans — as a key focus of our continuing crusade to rescue the world's oceans.

WWF is the world's largest and most experienced independent conservation organization. We have 4.7 million supporters and a global network active in 96 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature by

- conserving the world's biological diversity,
- ensuring that the use of renewable natural resources is sustainable, and
- promoting the reduction of pollution and wasteful consumption.

For more information about WWF, visit our Web site at [www.worldwildlife.org](http://www.worldwildlife.org), or call 1-800-CALL-WWF (1-800-225-5993) to learn how you can help.





**World Wildlife Fund**

1250 24th St., NW  
Washington, DC 20037  
USA

[www.worldwildlife.org](http://www.worldwildlife.org)  
Telephone: 202-293-4800  
Fax: 202-293-9211

© 2002 WWF. ALL RIGHTS RESERVED BY  
WORLD WILDLIFE FUND, INC.

PRINTED ON RECYCLED PAPER, USING  
SOYBASED INKS.

