



RARE PROGRAM FOR SUSTAINABLE FISHING IN THE  
**CORAL TRIANGLE**



# THE RISING TIDE OF COMMUNITY-LED CONSERVATION

STRENGTHENING LOCAL FISHERIES MANAGEMENT IN THE CORAL TRIANGLE

**RARE**  
inspiring conservation

# THE CORAL TRIANGLE

## Anchoring marine conservation in the community

**Overfishing in the Coral Triangle threatens not only the richest concentration of marine biodiversity in the world but also the livelihoods and food source of more than 120 million people. In 2010, collaborating with local and international partners, Rare launched its most ambitious project ever: reducing overfishing at 22 sites in the Coral Triangle.**

### A TREASURE UNDER THREAT

The Coral Triangle is a vast region in Southeast Asia made up of 18,500 islands and 647 million hectares of ocean. It is often referred to as the “nursery of the seas” because of the more than 500 species of coral and hundreds of thousands of hectares of sea grass and coastal mangrove forests that shelter and sustain a level of marine diversity unmatched anywhere on the planet.

This global center of marine biodiversity is under extreme pressure. Over 40% of the reef and mangroves in the region have disappeared in the last 40 years. Near-shore overfishing is a serious threat to these natural resources, and reversing the effects will require a significant change in human behavior. As fishers see the threat to food and income security rise, they will seek assurances of access to traditional fishing sources, explore alternative livelihoods, and work to secure these resources for future generations. Working with fishers and their communities will be a critical component to successful conservation in the Coral Triangle.

Ultimately, healthy coastal ecosystems will determine on-going economic and social stability in the region. Well-managed and sustainable fisheries will provide a critical source of income and protein. Industries such as eco-tourism also rely on clean beaches and unique diving opportunities to attract international earnings and create local employment opportunities.

**“RARE ATTENDS TO CONSERVATION WHERE IT HAS ULTIMATELY THE MOST LASTING EFFECT, THROUGH EDUCATION TUNED TO THE CULTURE AND NEEDS OF LOCAL PEOPLE.”**

— E. O. WILSON, PULITZER PRIZE-WINNING AUTHOR AND CONSERVATIONIST





## RARE'S PARTNERS AND SUPPORTERS IN THE CORAL TRIANGLE INCLUDE:



A FULL LIST OF PARTNERS IN THE CORAL TRIANGLE IS AVAILABLE UPON REQUEST.

## RARE'S PROGRAM FOR SUSTAINABLE NEAR-SHORE FISHING

In 2010, Rare launched a \$7 million, two-year marine conservation program at 22 sites across the Coral Triangle. Its goal is to empower coastal communities to manage their fisheries more sustainably and reap the full benefits of marine protected areas.

With training and support from Rare – as well as marine experts, public officials, and multiple donors – local partner organizations will implement a two-year program. It includes: (1) running outreach campaigns to build community awareness, support and capacity to better

steward marine resources; (2) training local fishers to use more conservation-friendly practices that improve their own livelihoods and access to better fish stock; and (3) demonstrating successful community-driven solutions that can be replicated at sites throughout the region.

The program will impact more than 4.5 million hectares of ocean and an estimated 700,000 people. It will also establish a network of local leaders and constituencies to support broader efforts to protect the Coral Triangle.

# HUMAN RELIANCE ON THE SEA

## A safety net for millions



### A DAY IN THE LIFE OF MR. JAMILI

Mr. Jamili is a fisher from the village of Berungus, 45 minutes by motorboat from Kudat, Malaysia. He lives there with his wife and seven children. Mr. Jamili has seen the decrease in fish in his community and worries that “future generations will be left with nothing.” Life for fishers like Mr. Jamili is not easy. The typical fisher leaves his house early in the morning having caught his bait the night before. He fishes with a simple hook and line in a non-motorized boat. He rows for an hour, then fishes for 4-6 hours. He will catch on average of no more than 15-20 small fish (approximately 2-3 kg). After he feeds his family he will have less than two dollars from the sale of his catch, to buy rice and other supplies for his household.

Fishing communities have the most to lose from overfishing. Any viable and long-lasting conservation solution must include the widespread engagement of people like Mr. Jamili — one of more than four million full-time fishers in the Coral Triangle whose families depend on their daily catch from the sea.

### CORAL TRIANGLE LIVELIHOODS

**4.5 million = number of full-time coastal fishers who depend on their daily fish catch**

**\$9 billion = annual economic output from fisheries in the region**

**10 million = tons of marine fish protein produced annually by the Philippines and Indonesia alone**

**“ RARE CAMPAIGNS TRAIN LOCAL LEADERS TO BUILD BROAD COMMUNITY SUPPORT FOR LOCAL FISHERIES MANAGEMENT; THEY WILL STRENGTHEN THE CAPACITY OF OUR FIELD PROGRAMS IN PRIORITY NATIONAL PARKS.”**

— HARYADI HIMAWAN, SECRETARY, DIRECTORATE GENERAL OF NATURE CONSERVATION AND FOREST PROTECTION, MINISTRY OF FORESTRY, INDONESIA

# NEAR-SHORE OVERFISHING

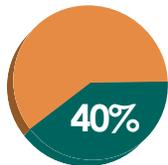
## A threat to livelihoods and marine health



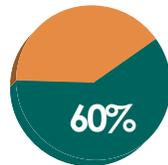
Overfishing, destructive fishing, coastal development, pollution from shipping, and land-based run-off are among the most direct human-threats to the health of the Coral Triangle. Near-shore, community-based overfishing is a problem involving millions of fishers and billions of dollars of economic productivity. Sustainable fishing solutions are needed urgently as populations in the region continue to grow and the natural resource base continues to shrink and degrade.

The majority of the more than four million local fishers throughout the Coral Triangle operate within one to four kilometers from shore because of the distance and equipment needed to travel into deeper waters. Most near-shore fishing is subsistence fishing, conducted within or near community waters. These fishers have a strong interest in protecting the reefs — their source of food and income — offering great potential for change.

### Indonesia



Small-scale/near-shore fisheries as % of total market

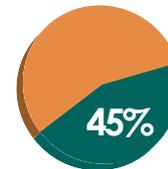


Reefs at "Medium" to "High" risk from overfishing

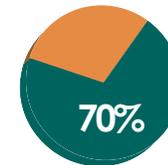
**\$4.3 billion**

Economic value of reefs

### Philippines



Small-scale/near-shore fisheries as % of total market



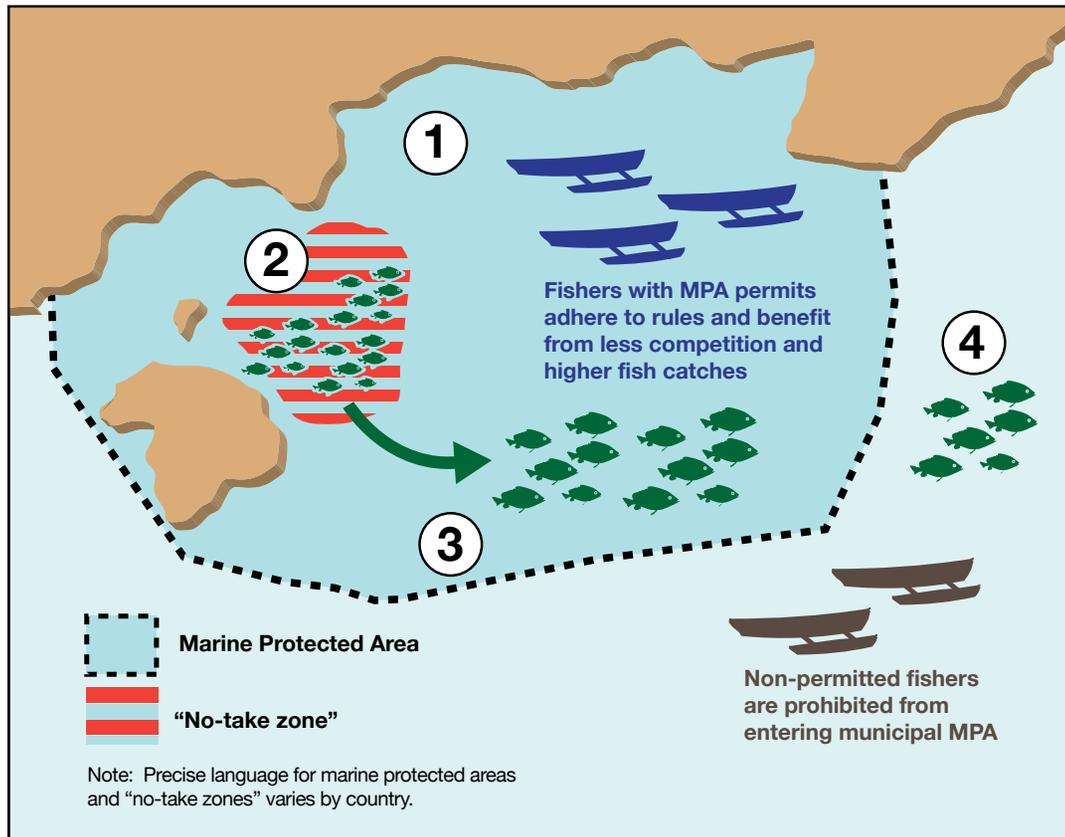
Reefs at "Medium" to "High" risk from overfishing

**\$1.4 billion**

Economic value of reefs

# MARINE PROTECTED AREAS AND NO-TAKE ZONES

## A local solution to overfishing



Working with community members to establish marine protected areas (MPAs) with "no-take zones" (where fishing does not take place) is a highly effective strategy for restoring local fisheries, sustaining livelihoods, and conserving marine biodiversity.

- 1** Governments and communities designate marine protected areas (MPAs). To protect the area's ecosystem, fishing is restricted to local fishers.
- 2** Within the marine protected area, local fishers help to establish no-take zones, where fishing is banned. No-take zones become fishery replenishment zones. As fish and other marine life grow, their ability to reproduce increases.
- 3** Science shows that bigger fish produce more eggs than smaller fish. No-take zones have been proven to increase fish populations. Spillover from the no-take zone results in increased fish catches elsewhere within the MPA.
- 4** As marine populations within the MPA increase, some fish will travel outside the MPA and boost the yield of fishers. Currents will also disperse eggs and larvae (newly hatched fish) to populate other habitats. Local fishers with exclusive access to the MPA have a strong incentive to support and enforce no-take zones.

**“ DEVELOPMENT OF LOCAL PUBLIC SUPPORT FOR MPAs AND NO-TAKE ZONES IS BY FAR THE MOST URGENTLY NEEDED CONSERVATION STRATEGY IN THE CORAL TRIANGLE.”**

— DR. PETER J. MOUS AND DR. JOS S. PET,  
FISHERIES AND PROTECTED AREA SPECIALISTS, INDONESIA

# DEVELOPING A COMMUNITY ASSET

## A case study from the Philippines

The declaration of an MPA is only the beginning. The most effective MPAs are both strongly enforced and locally supported. When well-managed, MPAs offer social and economic benefits to an entire community. Rare plans to replicate successful practices like this in 22 locations across the Coral Triangle.



### DAUIN, PHILIPPINES

**Population:** 21,077

**Average income:** ~\$100 per month per family

**Average family size:** 5

**Number of MPAs:** 9

One-in-five people depend on marine resources for a living



In 2003, newly elected Mayor, the Honorable Rodrigo A. Alanano, begins strictly enforcing nine MPAs with a history of minimal adherence. According to Mayor Alanano, "What is needed is the commitment and support of the community."



As fish size, quantity, and diversity increase, fishers pledge support and agree to purchase permits. Many are trained and deputized as "Sea Shepherd" monitoring patrols.



The increase in marine life attracts divers who purchase access permits. By 2008, fees bring in over \$130,000 annually. Increased tourism and revenues benefit the broader community, expanding support for the MPA.

**“ RARE IS A CRITICAL PARTNER... WE NEED A SOCIAL MARKETING CAMPAIGN TO INCREASE THE TECHNICAL LEVEL OF UNDERSTANDING AMONG COMMUNITIES ON HOW THESE NO-TAKE ZONES NEED TO FUNCTION.”**

— DR. MARK ERDMANN, SENIOR ADVISOR TO CONSERVATION INTERNATIONAL, INDONESIA

# RARE'S APPROACH

The power of community pride

Every Pride campaign combines a science-based conservation strategy with a community-focused social marketing campaign. The result? A change in community behavior that leads to more sustainable natural resource management.



**“IN MY VIEW, RARE HAS THE MOST EFFECTIVE APPROACH FOR SAVING THREATENED SPECIES OF ANY GROUP I’VE COME ACROSS IN 30 YEARS OF WRITING ABOUT NATURE AND THE ENVIRONMENT.”**

— EUGENE LINDEN, ENVIRONMENTAL WRITER FOR TIME MAGAZINE

Rare trains local conservation leaders to design and implement Pride campaigns — so named because they inspire people to take pride in the species and habitats that make their communities unique while giving them real incentives and alternatives to change environmentally destructive behaviors. Rare and its partners have run over 170 campaigns in more than 53 countries.

Rare provides proven community-led change techniques and conservation solutions. It relies on campaign managers to add an essential understanding of local culture and social norms — as well as to sustain long-term impact. Pride campaigns incorporate everything from social

marketing to public relations; education to stakeholder engagement; and developing alternative livelihoods to influencing local legislation.

Campaign managers who successfully complete their Pride campaign earn a Master’s degree in Communication with an emphasis on conservation. Rare’s training program has been accredited by the University of Texas at El Paso. Rare teams in Indonesia and the Philippines will provide training and mentoring to partners at 22 sites over a two-year period. Rare works with professors from Bogor Agricultural University (Institut Pertanian Bogor) and the University of the Philippines.

# CHANGING HEARTS AND MINDS

Building local support for sustainable fishing

## Combining conservation science....

Rare's implementing partners in the Coral Triangle will employ science-based approaches to identify the optimal "no-take-zone" locations, to improve enforcement efforts, and to implement monitoring systems.

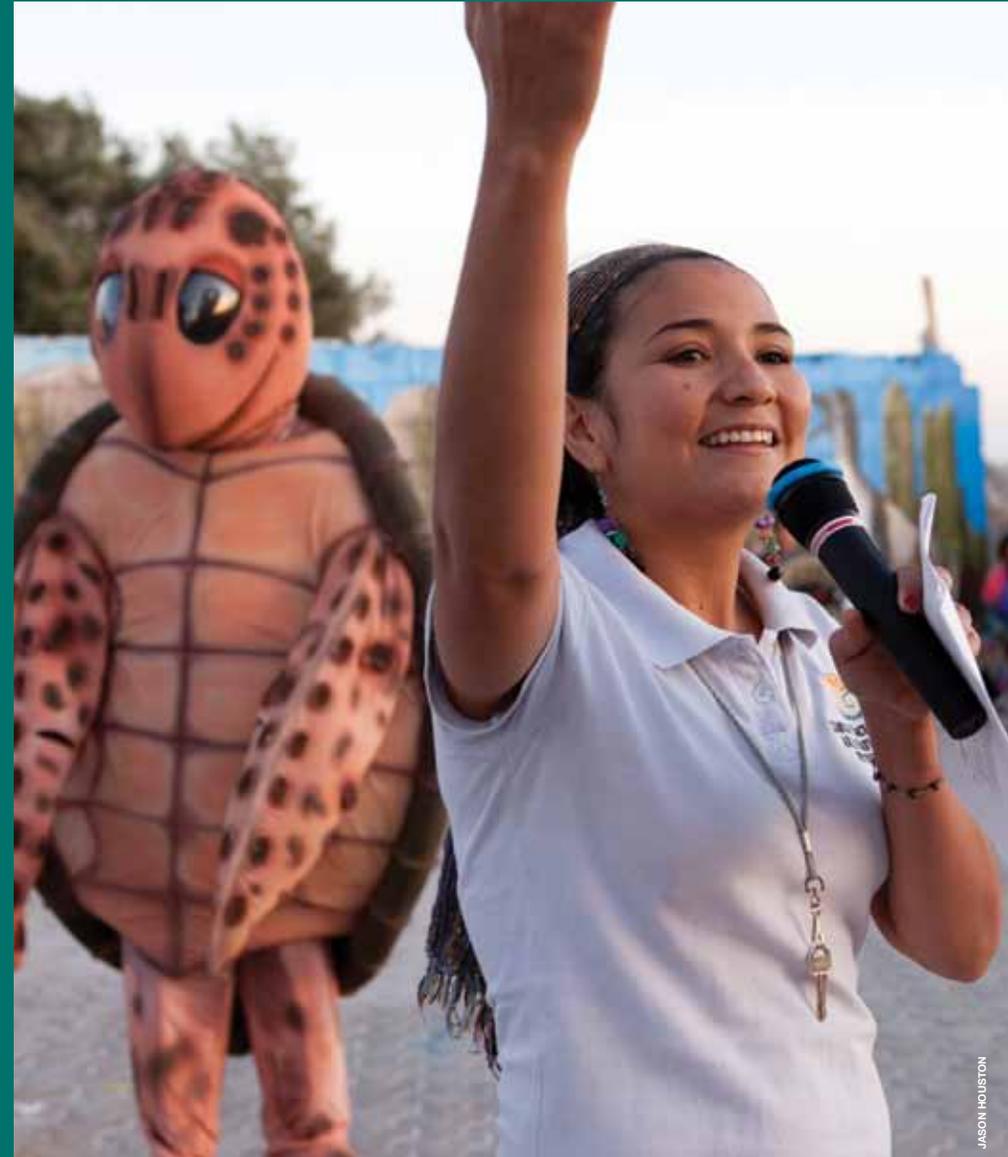
## ...with compelling social marketing...

Rare's implementing partners will use the power of marketing to engage local communities and change their understanding and approach to local fisheries management. Rare will train campaign managers to lead carefully-designed surveys, focus groups, and discussions with community members to build a detailed picture of how they see the state of the fisheries and the MPA.

Campaign managers will implement marketing campaigns that target various segments of the community in a way most likely to change awareness and attitudes. For example, cooking contests are often used to engage women, with a theme of overfishing. Flyers are developed with local religious leaders, appropriate to the religion preferred in the community. Discussion forums are organized with the local fishing cooperative members, and reinforced with songs, posters, fact sheets, festivals, and radio spots.

## ...to deliver measurable results.

The combination of social marketing complemented by enhanced, community-based enforcement, monitoring, and a clearer understanding of the importance and location of no-take zones will result in increased coral reef health, fish biomass, and awareness of the dangers of overfishing.



JASON HOUSTON

# CREATING LASTING IMPACT

A global network for change



Rare develops local leaders who go on to make a lasting impact in their communities. A recent alumni survey revealed that 73% of Rare partners sustained their campaigns after the formal partnership ended. 52% of alumni said they have launched second and third campaigns.

## CONNECTING CHANGE AGENTS

Launching 22 sites focused on the same issue creates a powerful learning network. Rare's online conservation platform, RarePlanet, connects local Pride campaign managers,

fisheries experts, and advocates around the world. They share best practices, provide advice, and build a global learning network for local fisheries management. RarePlanet also provides a real-time view into the progress of every Pride campaign, offering donors and partners one of the most transparent project management systems in conservation.



“THE RARE EXPERIENCE FILLS A CRITICAL GAP IN OUR MARINE CONSERVATION EFFORTS BY COMMUNICATING COMPLEX SCIENCE INFORMATION AND SEIZING OPPORTUNITIES FOR PURPOSEFUL ACTIONS.”

— PORFIRIO M. ALIÑO, PHD  
THE MARINE SCIENCE INSTITUTE,  
UNIVERSITY OF THE PHILIPPINES

“RARE'S PRIDE TRAINING PROGRAM HAS DEVELOPED SPECIFIC SKILLS AND CAPACITY WITHIN OUR STAFF FOR DEVELOPING COMMUNITY-BASED CONSERVATION CAMPAIGNS IN THE TUN MUSTAPHA MARINE PARK AND WILL ENHANCE WWF-MALAYSIA'S ACTIVITIES THROUGHOUT THE REGION.”

— REJANI KUNJAPPAN,  
EDUCATION COORDINATOR,  
WORLD WILDLIFE FUND, MALAYSIA

A silhouette of a fisherman standing in shallow water, pulling a large net. The background is a vibrant sunset sky with orange and yellow hues. The fisherman is on the left, and the net is draped across the water towards the right.

## SUCCESS IN THE CORAL TRIANGLE

In the Coral Triangle, Rare seeks to strengthen fisheries management in three ways:

### **DEVELOP LOCAL CONSERVATION LEADERS**

Twenty-two local conservation leaders have a replicable model to launch additional projects.

### **STRENGTHEN COMMUNITY SUPPORT FOR LOCAL FISHERIES MANAGEMENT**

Hundreds of communities have adopted more sustainable fishing practices either directly or indirectly from the shared learning of the campaigns.

### **ACHIEVE LASTING CONSERVATION**

Increased fish density and coral recovery in over 4.5 million hectares of priority protected areas in the world's most ecologically diverse marine ecosystem.

# BIGGER FISH MEAN MORE FISH

The larger a fish is allowed to grow, the more eggs it is able to produce. For example, one snapper weighing 11Kg produces the same number of eggs as 250 snappers weighing 1.1 Kg each.



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**SUSTAINABLE  
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