



NFWF

2016 Coral Reef Conservation Fund Grant Slate

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Coral reef in the Bahamas

OVERVIEW

Coral reefs are one of the world's most valuable ecosystems in terms of ecological, economic and cultural capital. However, recent reports indicate that 58 to 70 percent of coral reefs globally are directly threatened by human-associated activities. Overfishing, direct damage from recreational and commercial activities and land-based sources of pollution in the form of sediment, toxins and nutrient run-off threaten coral ecosystems.

ABOUT NFWF

The National Fish and Wildlife Foundation (NFWF) protects and restores our nation's fish and wildlife and their habitats. Created by Congress in 1984, NFWF directs public conservation dollars to the most pressing environmental needs and matches those investments with private funds.

Learn more at www.nfwf.org

NATIONAL HEADQUARTERS

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The Coral Reef Conservation Fund seeks to provide catalytic funding for innovation in management and science, and foundational capacity at the local level, both domestically and abroad. This year's Request for Proposals focused on improved watershed planning and management on select priority domestic reefs and specific goals in understanding and increasing reef fish species that play a critical role in coral reef resilience. In the international portfolio, priorities focused on implementing regional coral reef marine protected area initiatives in the Caribbean, Micronesia and the Coral Triangle, as well as local capacity support for implementation of skills acquired from recent training workshops.

The 18 projects chosen represent a total award amount of \$1.15 million which will be further leveraged by \$1.25 million in grantee matching contributions for a total on-the-ground impact of \$2.4 million. The projects address the three key strategies in coral reef conservation that are prioritized in the National Oceanic and Atmospheric Administration (NOAA)/NFWF partnership: 1) Targeted Watershed Planning and Run-off Abatement; 2) Increasing Herbivorous Fish Biomass; and 3) Increasing Capacity for Management.

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TARGETED WATERSHED PLANNING AND RUN-OFF ABATEMENT

The following projects seek to reduce threats to coral reef systems from land-based sources of pollution. Projects include ridge-to-coast watershed assessment and pollutant source identification, abatement planning and implementation and monitoring for impact. Projects in this slate target pre-selected priority domestic reefs to reduce nutrients like nitrogen and phosphorus from agricultural and septic sources, sedimentation from poor land and road management, and heavy metals from historical paints, chemicals and urban sources that together reduce the health of coral reefs and make them less resilient to environmental stress.

1) Sediment Reduction in Coral Bay St. John (VI) - II

Grantee: Coral Bay Community Council
 NFWF Award Amount: \$67,910
 Matching Funds: \$68,000
Total Project: \$135,910

Coral Bay Community Council will continue efforts to reduce sedimentation from unpaved roads that affect downstream coral reef and associated marine habitats. Project will help local landowners establish six to 10 stormwater mitigation projects in at least two drainage basins that feed into Coral Bay.

2) This Is My Beach: Reducing Local Contributions of Debris into the Marine Environment (VI)

Grantee: St. Croix Science & Conservation
 NFWF Award Amount: \$77,718
 Matching Funds: \$78,000
Total Project: \$155,718

St. Croix Science & Conservation will reduce local contributions of debris to the marine environment by generating community action, business leadership and behavior change within the targeted watershed. Project will conduct a public awareness campaign aligned with derelict fish trap and marine debris removal, spatial distribution assessment of plastics and microplastics in the coastal zone, and recovery monitoring programs for impacted coastal and nearshore ecosystems.

3) Pelekane Bay Watershed Restoration and Recovery (HI)

Grantee: The Kohala Center
 NFWF Award Amount: \$66,209
 Matching Funds: \$66,400
Total Project: \$132,609

The Kohala Center will implement mitigation techniques to

reduce sediment run-off causing alteration to the coral reef community, fish habitat and food source after the August 2015 fire and flood. Project will empty 15 sediment check dams making them operational again, collect up to 500 tons of sediment, and remove feral goats that have re-entered the system allowing for out planting of native species to help stabilize the soil and reduce runoff.

4) Reducing Land-Based Pollutants to Napili Bay's Reef (HI)

Grantee: Napili Bay and Beach Foundation
 NFWF Award Amount: \$25,000
 Matching Funds: \$26,000
Total Project: \$51,000

Napili Bay and Beach Foundation will reduce land-based pollutants that are discharged into the ocean waters of Napili Bay. Project will prepare engineering plans and implement best management practices to stabilize unimproved parking areas to reduce surface water volume and pollutant loads to nearshore coral reefs.

5) Reduce Sedimentation to Coral Reefs from All-Terrain Vehicles through Best Management Practices (PR)

Grantee: Protectores de Cuencas
 NFWF Award Amount: \$79,901
 Matching Funds: \$79,970
Total Project: \$159,871

Protectores de Cuencas will reduce sedimentation runoff from all-terrain vehicle use in Cabo Rojo Watershed impacting nearby coral reefs. Project will implement sediment traps and raingardens to a municipal coastal road adjacent to refuge in the Los Pozos and Melones area.

6) Measuring the Impact of Wastewater Pollution Management Action in South Kohala (HI)

Grantee: The Coral Reef Alliance
 NFWF Award Amount: \$50,000
 Matching Funds: \$50,000
Total Project: \$100,000

The Coral Reef Alliance will ensure that the community of Puako has the long-term capacity to measure the impact of improvements to wastewater treatment practices on nearby coral reef systems. Project will establish baseline data according to specifications in the monitoring plan and build a constituency to conduct long-term monitoring.



Goatfish

7) Increasing Adaptive Management Capacity in Pohnpei (Federated States of Micronesia)

Grantee: Conservation Society of Pohnpei

NFWF Award Amount: \$38,000

Matching Funds: \$47,895

Total Project: \$85,895

Conservation Society of Pohnpei will develop community action plans in the municipalities of Nett and Sokehs in Pohnpei to assist local management of resources and establish an effective support system at the state level. Project will engage community members in identifying gaps to achieving their goals and conduct workshops on reef fish management tools needed, while incorporating them more broadly into a statewide fishery management plan.

INCREASING HERBIVOROUS FISH BIOMASS

The following projects seek to understand the ecological linkages between reef fish complexes like herbivores and their importance to reef health and resistance to competitors like algae after episodic bleaching events. In addition to research, projects in this strategy test new management approaches to sustainable reef fish management, to directly increase the ecosystem services of these species.

1) Identifying Local Drivers that Influence Coral Bleaching, Survivorship and Recovery (HI)

Grantee: Regents of the University of California - San Diego, Scripps Institute of Oceanography

NFWF Award Amount: \$65,493

Matching Funds: \$65,495

Total Project: \$130,988

Regents of the University of California - San Diego, Scripps Institute of Oceanography will increase understanding of factors that contribute to resiliency and recovery of coral reefs in Maui at the molecular and reefscape scales. Project will examine local biological and environmental drivers with an emphasis on the impact of herbivore and watershed management on coral reef resilience and recovery to bleaching.

2) Socioeconomic Assessment of Coral Reef Dependent Communities (AS, HI)

Grantee: San Diego State University Research Foundation

NFWF Award Amount: \$67,118

Matching Funds: \$82,427

Total Project: \$149,545

San Diego State University Research Foundation will develop and implement socioeconomic assessments and monitoring programs in communities in Hawaii and American Samoa to improve sustainable coral reef fisheries management. Project will provide information necessary to gain a better understanding of social-ecological linkages, and to integrate project results into adaptive management of coral reef fisheries at the local level.

3) Comparative Environmental DNA Analysis of Hawaiian Coral Reef Fishes

Grantee: Research Foundation of the City University of New York
 NFWF Award Amount: \$49,000
 Matching Funds: \$56,000
Total Project: \$105,000

Research Foundation of the City University of New York will analyze environmental DNA from water samples previously collected from 35 coastal marine sites throughout the main Hawaiian Islands as a potential new tool for fisheries management. Project will seek to detect priority fish such as the goatfish, surgeonfish and parrotfish complexes and invasive fish like the peacock grouper using eDNA, and investigate relationships between coral reef fish diversity, associated habitat and fisheries data in the wild.

4) Evaluate Role of Herbivores in Mediating Coral Bleaching Impacts on Health and Recruitment (HI)

Grantee: The Nature Conservancy
 NFWF Award Amount: \$75,000
 Matching Funds: \$75,000
Total Project: \$150,000

The Nature Conservancy will conduct a study that evaluates the role of herbivores such as sea urchins or parrotfish in promoting coral health and recovery following the 2015 mass coral bleaching event along the west coast of Hawaii Island. Project will evaluate whether overgrowth by turf algae following a bleaching event degrades the health of adult coral colonies and inhibits the survival of coral juveniles, and will examine the role that herbivores play in mediating these interactions.

INCREASING CAPACITY FOR MANAGEMENT

The following projects seek to build local government capacity for advancing marine protected area networks at the community to regional scale. Projects target known capacity gaps through previous assessments and seek to replicate proven models. The majority of the projects under this category allocate NOAA funds targeting international coral reef conservation.

1) Strengthening Capacity in the Solomon Islands to Plan and Implement Fisheries Management

Grantee: Wildlife Conservation Society
 NFWF Award Amount: \$70,064
 Matching Funds: \$70,100
Total Project: \$140,164

Wildlife Conservation Society will work with local communities in the Western Province to develop an ecosystem approach to reef fisheries management planning and strengthen local governance. Project will reduce harvesting pressure on fisheries resources such as edible shellfish, giant clams and sea cucumbers required for local food and income, and will improve status of locally important reef fish stocks.

2) Expanding Community-Based Coral Reef Conservation in Eastern Indonesia

Grantee: Indonesia Locally Managed Marine Area Foundation
 NFWF Award Amount: \$41,000
 Matching Funds: \$45,000
Total Project: \$86,000

Indonesia Locally Managed Marine Area Foundation will mobilize teams of mentors to teach 100 new communities how to use streamlined planning approaches for achieving coral reef conservation actions. Project will result in at least 40 specific marine conservation actions that address major threats to coral reefs and start to restore the health of these ecosystems.

3) Managing a Sustainable Marine Tourism Industry in the Philippines Using the Green Fins Approach

Grantee: The Reef-World Foundation
 NFWF Award Amount: \$65,005
 Matching Funds: \$122,000
Total Project: \$187,005

The Reef-World Foundation will build capacity of managers in the Philippines to reduce impacts to coral reefs associated with marine tourism using the Green Fins approach. Project will promote and measure compliance of dive industry to best practices supporting coral conservation and resilience.

4) Spread the Reach of Community-Based Coral Reef Conservation (Papua New Guinea)

Grantee: Conservation International Foundation
 NFWF Award Amount: \$59,902
 Matching Funds: \$60,000
Total Project: \$119,902

Conservation International Foundation will expand the

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conservation of coral reefs in Milne Bay Province of Papua New Guinea by fostering a guidance and training system that mentors government and community members in their pursuit and practice of coral reef conservation. Project will focus on strengthening the role of community-based biological monitoring teams in mentoring neighboring communities and add an additional 100,000 hectares of coral reefs to community-based management.

5) Coordination of a Global Socio-Economic Monitoring Initiative for Coastal Management - II

Grantee: Centre for Resource Management and Environmental Studies, The University of the West Indies

NFWF Award Amount: \$40,500

Matching Funds: \$40,500

Total Project: \$81,000

Centre for Resource Management and Environmental Studies, The University of the West Indies will facilitate the coordination and development of socio-economic data collection through seven regional programs around the world. Project will continue to support regional capacity in socio-economic monitoring and produce updates to a suite of printed and electronic SocMon training materials.

6) Building Capacity for Coral Reef and Human Dimensions Monitoring in the Wider Caribbean

Grantee: Parc National de la Guadeloupe

NFWF Award Amount: \$72,000

Matching Funds: \$72,000

Total Project: \$144,000

Parc National De La Guadeloupe will build capacity for integrated, standardized, coral reef and human dimensions monitoring, reporting and data management in six Caribbean countries. Project will conduct training workshops to increase capacity for integrated coral reef monitoring, reach at least 20 coastal resource managers and practitioners, and enable follow-up activities post-training via site-specific assessments.

7) Developing Strategies for Reef Restoration on Palmyra Atoll Following Invasion of a Corallimorph

Grantee: University of California - San Diego

NFWF Award Amount: \$146,233

Matching Funds: \$146,233

Total Project: \$292,466

University of California - San Diego will restore roughly 500 square meters of highly invaded habitat on Palmyra's reef terrace. Project will investigate how the current El Niño and global coral bleaching event is facilitating the spread of an invasive corallimorph in coral-dominated

habitat, remove the invasive, and transplant corals back onto treated areas.



Parrotfish