



CORAL REEF CONSERVATION PROGRAM

# **Coral Reef Conservation** **Grant Programs**

Program Review  
NOAA Coral Reef Conservation Program  
September 26<sup>th</sup>, 2007

# Overview

The Coral Reef Conservation Act of 2000 authorizes two CRCP grant programs (which currently comprise 26% of CRCP appropriations; just under \$33M), that provide funding opportunities to non-NOAA entities for projects supporting coral reef conservation:

- (1) **Coral Reef Conservation Grants Program:** In 2002-2006, the CRCP grants comprised 22% of CRCP appropriations (\$28.1M)
- (2) **Coral Reef Conservation Fund:** a partnership between NOAA and the National Fish and Wildlife Foundation. In 2002-2006, the Fund comprised 4% of CRCP appropriations (\$4.9M)

# Coral Reef Conservation Grants Program

The **Coral Reef Conservation Grants Program** funds are awarded under the following six program categories:

- **State and Territory Coral Reef Management** (*Applicants: State and Territory Management Agencies*)
- **State and Territory Coral Reef Ecosystem Monitoring** (*Applicants: State and Territory Management Agencies*)
- **Projects to Improve or Amend Coral Reef Fishery Management Plans** (*Applicants: South Atlantic, Caribbean, Gulf of Mexico, and Western Pacific Regional Fishery Management Councils*)
- **General Coral Reef Conservation** (*Applicants: Academia, NGOs, others*)
- **Coral Reef Ecosystem Research** (*Applicants: Academia, NGOs, others*)
- **International Coral Reef Conservation** (*Applicants: International governments, NGOs, others*)

# Coral Reef Conservation Grants Program

The CRCA specifies several requirements for the program:

- Grants must be matched at a 1:1 matching ratio, although waivers are possible
- Awards must meet geographic distribution goals; no less than 40% to the Pacific and 40% to Atlantic, Gulf of Mexico, and Caribbean, with the remainder to Intl. or emerging threats
- NOAA must provide for merit-based review of proposals, and consider the extent to which the project is consistent with locally-established priorities

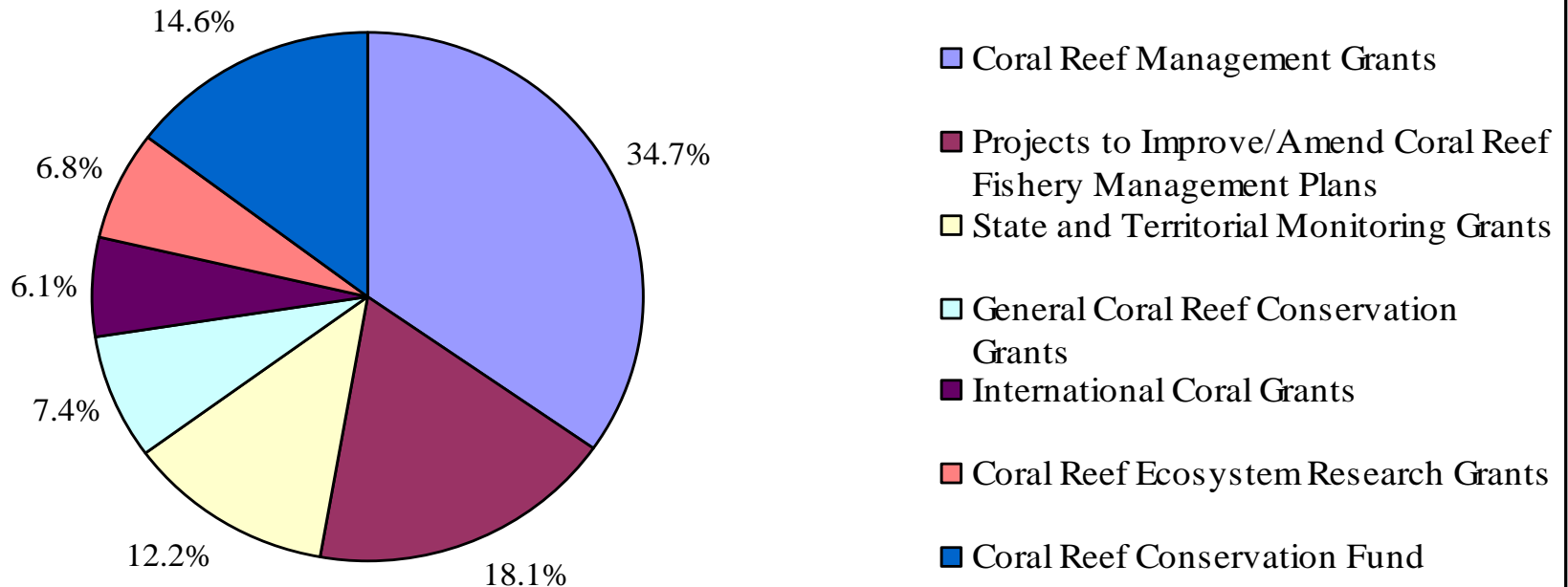


# Coral Reef Conservation Grants Program

- The Coral Reef Conservation grant program has awarded \$28.1M in federal funds to a broad array of applicants under the 6 programs
- These funds have been matched by \$11.9M in non-Federal funds
- In several instances, State and Territories have been able to attract additional funds from other federal and non governmental sources to address coral reef management needs, as well as significant in-kind contributions

# Distribution of CRCPC Grant Funds

**Coral Reef Conservation Grants and Funds, 2002-2006**





# 1. State and Territory Coral Reef Management Grants

- This grant program's objective is to support effective conservation and management of coral reefs and associated fisheries by state and territory government agencies
- This grant program is a primary and essential source of funds that enables local jurisdictions to comprehensively manage coral reef resources and implement on-the-ground projects based on island-specific needs and threats



# State and Territory Coral Reef Management Grants

- \$11.5M in grant funding has been awarded: \$10M was provided by the CRCP and \$1.5M by the Department of the Interior's Office of Insular Affairs
- Funding is competitive in nature and varies each year among jurisdictions Annual Grant awards typically range from \$200,000 to \$600,000 per jurisdiction



# State and Territory Coral Reef Management Grants

*These grants support a broad array of management activities:*

- Building local capacity by providing funds for coral program staff, training, and equipment.
- Developing and implementing **Local Action Strategies** (LAS) and other initiatives
- Developing education and outreach strategies and activities.
- Managing marine protected areas (MPA) and coral reef ecosystem resources (including fisheries).
- Addressing watershed management and land-based sources of pollution.

# State and Territory Coral Reef Management Grants

Examples of specific **outputs and outcomes**:

- **Hawai'i**- Supported the coordination, development, and implementation of six comprehensive LAS
- **CNMI**- Supported restoration efforts in two watersheds adjacent to important coral reef habitat
- **Guam**- funded the development of management decision-making tools, such as a digital water resources atlas for all watersheds in southern Guam
- **American Samoa**- Funding was used to support outreach staff to implement a campaign to raise awareness about turtle and coral reef habitat conservation as well as numerous MPA projects

# State and Territory Coral Reef Management Grants

## Examples of Specific *Outputs and Outcomes*

- **Florida-** Funding was used to establish the Southeast Florida Coral Reef Conservation Program in Miami, which is staffed by seven people and develop four LAS
- **Puerto Rico-** Completion of the final draft of the *Puerto Rico Coral Reef Management Plan* and Community-based processes resulting in draft managements plans for three of Puerto Rico's natural reserves
- **USVI-** Completion of the management plan for the 60 square mile East End Marine Park on St. Croix, which is now in the final stages of the regulatory process

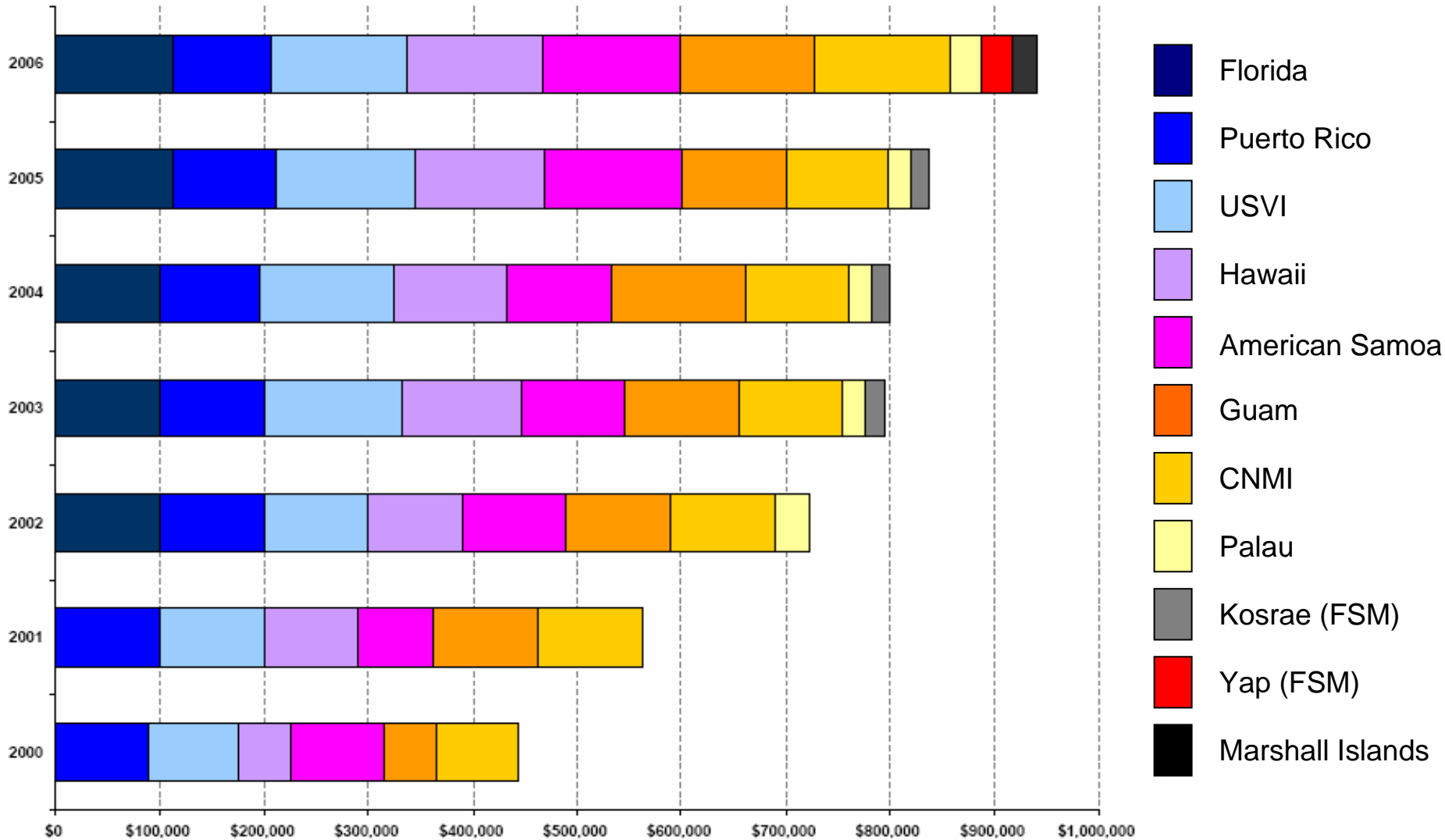


## 2. State and Territory Coral Reef Ecosystem Monitoring Grants

- Provides stable or increasing funding to support long-term monitoring program development, operations, and reporting
- Jurisdiction activities complement NOAA monitoring activities, fill gaps spatially and temporally, provide rapid response capability
- Cooperative agreements permit NOAA's 'substantial involvement' in developing monitoring plans and activities

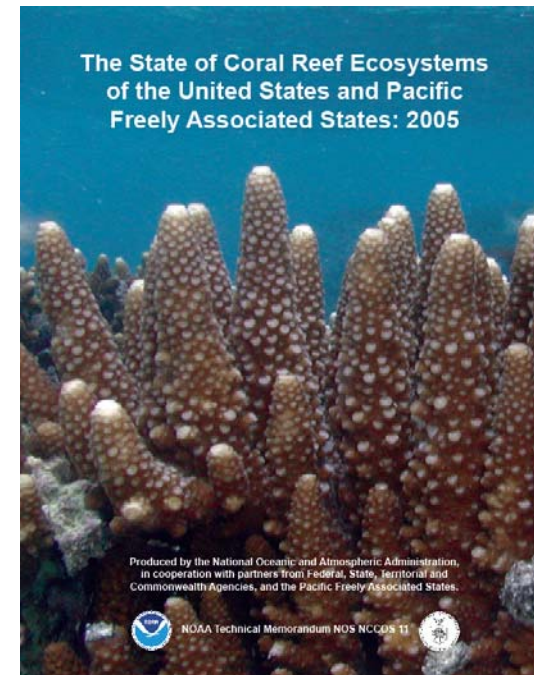


# Monitoring Grants—Funding History



# Monitoring Outcomes

- Supplies data, leadership essential to assessment of condition of U.S. and FAS coral reef ecosystems
- Provides scientific basis for management decisions
- Fosters local development of comprehensive long-term monitoring plans
- Supports inter-jurisdictional exchange and collaboration, regional partnerships
- Increases local capacity for documenting effects of key threats and tracking trends in health



### **3. Projects to Improve or Amend Coral Reef Fishery Management Plans (FMC Grants)**

Eligible applicants are the following four Regional Fishery Management Councils:

- The Western Pacific
- Gulf of Mexico
- South Atlantic
- Caribbean

# Projects to Improve or Amend Coral Reef Fishery Management Plans (FMC Grants)

## Grant Program Categories:

1. Identifying, mapping, characterizing, monitoring, and protecting coral reef habitats;
2. Monitoring reef fish stocks;
3. Identifying the adverse impacts of fishing gear and methods;
4. Assessing the adequacy of current coral reef fishing regulations and develop revisions as needed;
5. Education and outreach efforts to recreational and commercial fishers;
6. Enhancing enforcement of fishery regulations and/or no-take fishery resources; and
7. Ecosystem-scale studies and inclusion of ecosystem approaches into coral reef fishery management plans.



# FMC Grants Outputs and Outcomes

## 1. Caribbean Fishery Management Council:

Characterized populations and benthic communities in deeper coral reef habitats off the west coast of Puerto Rico, which has enabled the Council to justify maintaining the area closure for red hind indefinitely, instead of reopening the area closure in 2007 as planned.

## 2. Gulf of Mexico Fishery Management Council:

Characterized and assessed Madison-Swanson and Steamboat Lumps MPAs and used this information to justify permanent closure of these areas, which were scheduled to reopen in 2007.

# FMC Grants Outputs and Outcomes

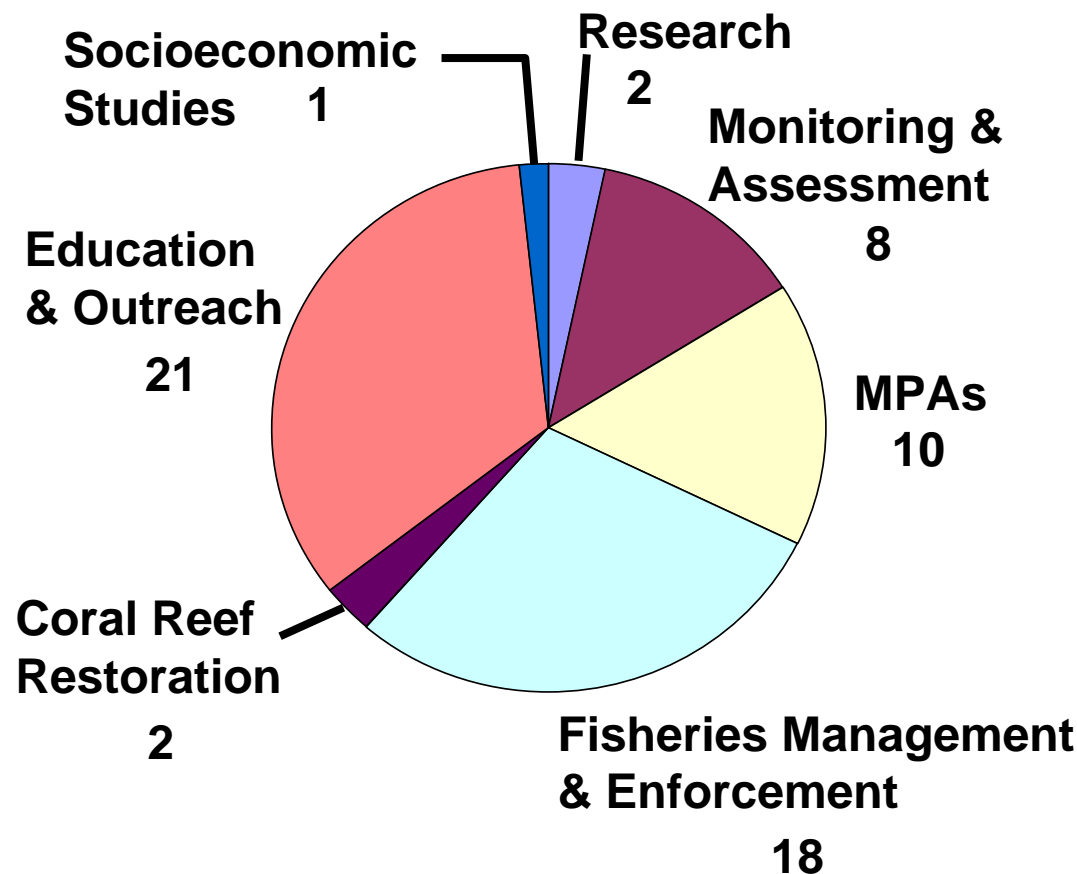
- 3. South Atlantic Fishery Management Council:**  
Completed characterization and mapping of the Oculina Banks HAPC, a necessary step to protect and enforce the closed area and identified possible locations for several new coral HAPCs.
  
- 4. Western Pacific Regional Fishery Management Council:** Compiled historic and recent coral reef fisheries data and developed ecosystem indicators to assist in fisheries management.

## 4. General Coral Reef Conservation Grants

- This grant program supports activities undertaken by academia, non-profit, NGOs, and FAS entities to undertake a broad array of activities such as public outreach, monitoring, and coral reef MPA activities
- Often these activities occur at the community level, complementing Federal, state and Territorial coral programs
- Since 2002, \$2.4M in federal funds have been awarded, leveraging \$3.7M in match

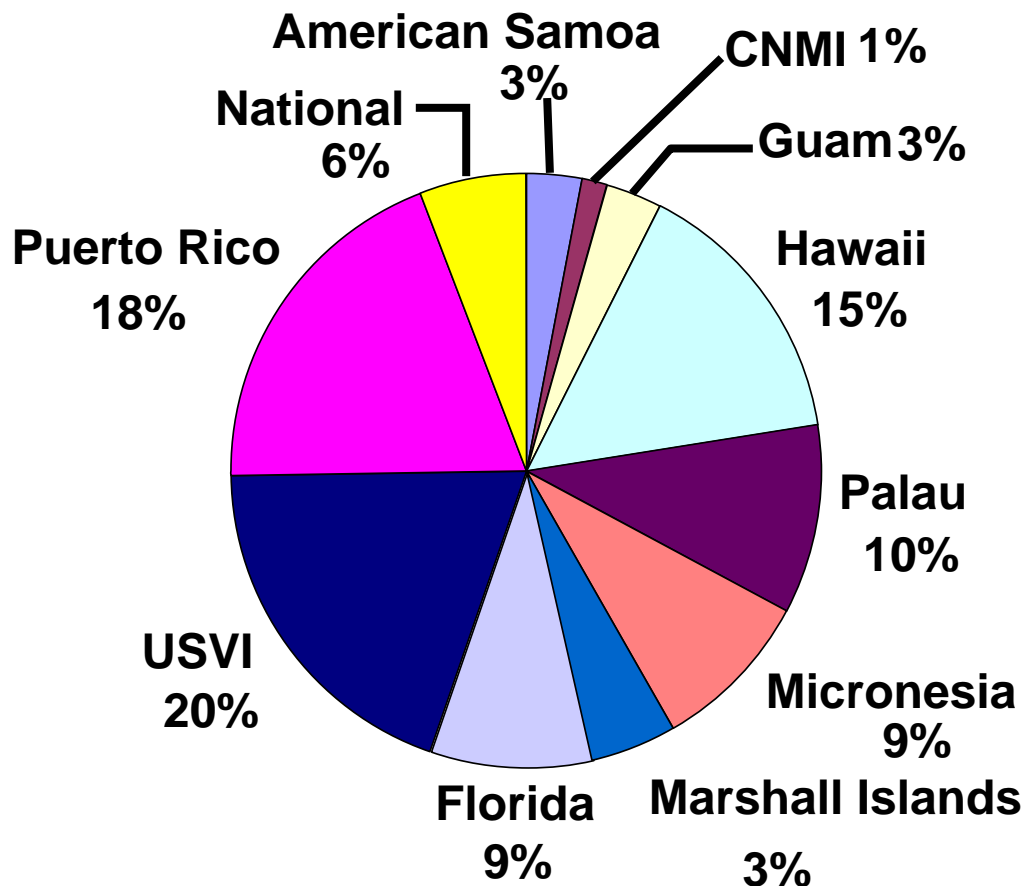
# General Coral Reef Conservation Grants

## Number of Projects per Category



# General Coral Reef Conservation Grants

## Percentage of Projects by Region



# General Coral Reef Conservation Grants

## Highlighted Outputs and Outcomes

### Education and Outreach:

NGO's and academia work with communities to enhance stewardship and to develop targeted outreach materials.

- Support and enhancement of Makai Watch Program in Hawaii  
As a result of community efforts on the big Island of Hawai'i and work by partners in Maui, the State of Hawai'i has recognized and sanctioned the Makai Watch programs
- Development of culturally appropriate outreach materials about recreation use etiquette in leveraged this work to develop teaching strategies using materials in the classroom, and developed an educational cartoon that is airing on public television in Puerto Rico
- Work to minimize visitors' impacts on coral reefs in Freely Associated States



# General Coral Reef Conservation Grants

## Highlighted Outputs and Outcomes

### Fishery Management and Enforcement:

NGO's and academia work with communities to assess key fishery stocks, provide fishery management options, and improve enforcement.

- Identification of a major shark nursery area, Fish Bay, St John, USVI and identified conservation recommendations
- Collection of critical data on *Acropora palmata* and *Acropora cervicornis* for Florida that assisted NOAA in listing these species
- Enhancement of enforcement operations in Palau -  
Increased patrolling and outreach to remote villages, four additional states within Palau initiated conservation law enforcement programs, and citations increased 100% compared to the year before the grant

# General Coral Reef Conservation Grants

## Highlighted Outputs and Outcomes

### Marine Protected Areas:

NGO's and academia work with communities to enhance MPA management and understand effectiveness.

- Assessment of MPA effectiveness in relation to fish movement and life history of squaretail coral grouper, *Plectropomus areolatus*, in Kehpara Marine Sanctuary Pohnpei.  
Results were presented to a Pohnpei legislative audience and findings are being drafted by the attorney general for further consideration before the full legislature
- Development Management Plans for Nature Reserves in Puerto Rico.  
Draft Management Plan for Arrecifes de la Cordillera Nature Reserve and the Plan is undergoing final revision by the PRDNER. A management plan for Tres Plamas Nature Reserve is under development
- Characterization of habitat and use patterns of ornamental fish in MPAs in Hawaii





## 5. Coral Reef Ecosystem Research Grants

- Provides funding to partners for management-oriented research to understand the roles of coral reef ecosystem threats
- Administrated through a partnership based on shared research priorities with the National Undersea Research Program (NURP)
- Awarded \$2.2M and leveraged an additional \$1.2M in non-federal match and \$1.9M in NURP funds to support 27 projects

# Research Priorities

- Stressors and Their Impacts
  - Overfishing
  - Pollution
  - Invasive Species
  - Disease
  - Climate Change
  - Coral Bleaching
- Evaluation of Management Effectiveness



# Research Highlights

## Southeast U.S. and Gulf of Mexico

- Partnered with U.S. EPA and Sanctuary Friends of the Florida Keys to conduct a joint peer-reviewed proposal process for coral reef research in the Florida Keys National Marine Sanctuary

## U.S. Caribbean

- Preliminary results from an assessment of the recovery of *Diadema antillarum* inside and outside of St. Croix, USVI MPA show *Diadema* recovery is widespread, but not universal

## Hawai'i and the Western Pacific

- Data results indicated a decline in younger black coral populations prompting fisheries managers to propose restricting harvest of older black coral colonies



## 6. International Coral Reef Conservation Grants

- This program supports the development of coral reef conservation and management strategies and their application in non-U.S. jurisdictions
- Since 2002 has awarded \$2.1M and leveraged an additional \$2.2M in matching funds to 56 coral projects in over two dozen countries
- Provides resources to targeted priority themes at international sites
  - MPA Effectiveness
  - MPA Networks
  - Socio-economic Monitoring

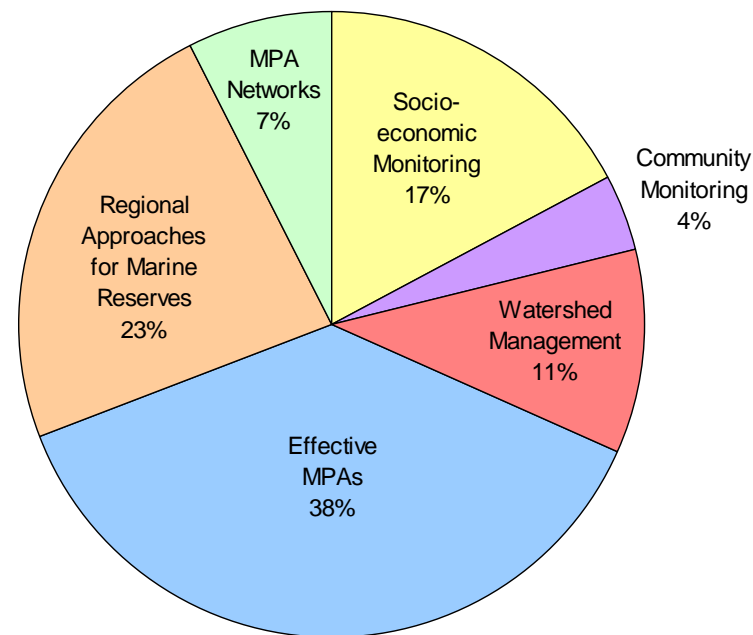
# International Coral Grants: Funding Priorities

- Expanding community-based projects for **biophysical monitoring** and public awareness promotion (2002)
- Promoting the use of **socioeconomic assessments** to help managers better understand communities affected by MPA management decisions (2002-06)
- Promoting **best management practices** to reduce and control runoff in the Caribbean (2003-06)
- Implementing **management effectiveness** programs to enhance adaptive management of MPAs and contribute to the development and implementation of new guidelines for MPA practitioners (2002-06)
- Supporting regional approaches to **promote marine reserves** in the Caribbean and Southeast Asia (2003-05)
- Promoting development of **MPA Networks** (2006)

# International Coral Grants by Category

- Effective MPAs \$1,583,022 (16 projects)
- Regional Approaches for Marine Reserves \$985,468 (14 projects)
- MPA Networks \$308,260 (3 projects)
- Socio-economic Monitoring \$734,407 (15 projects)
- Watershed Management \$447,337 (5 projects)
- Community Monitoring \$156,776 (3 projects)

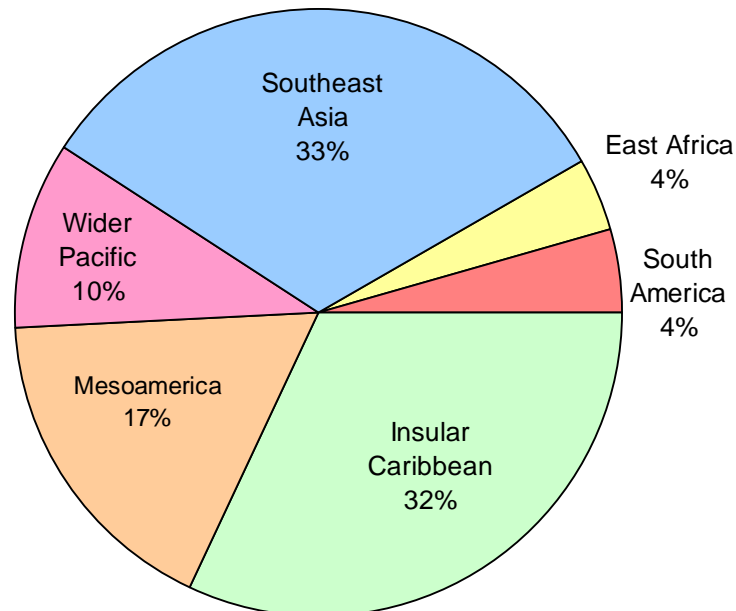
Project Funding by Activity, 2002-2006



# International Coral Grants by Region

| Region            | Projects  | Countries | CRCP Funding       |
|-------------------|-----------|-----------|--------------------|
| East Africa       | 3         | 4         | \$81,200           |
| South America     | 3         | 2         | \$91,000           |
| Insular Caribbean | 17        | 8         | \$654,400          |
| Mesoamerica       | 11        | 4         | \$354,450          |
| Wider Pacific     | 4         | 4         | \$202,000          |
| Southeast Asia    | 17        | 5         | \$670,050          |
| <b>Total</b>      | <b>56</b> | <b>27</b> | <b>\$2,053,100</b> |

Funding by Region, 2002-2006



## 7. Coral Reef Conservation Fund

- The Coral Reef Conservation Fund (the Fund) is a partnership between [NOAA](#) and the [National Fish and Wildlife Foundation](#) (NFWF), provides competitive grants to build community-based, public-private partnerships to reduce and prevent degradation of coral reefs and associated reef habitats
- Since 2002, the CRCP has provided \$4.9M to 144 projects throughout the U.S. and in over thirty countries. This support has been further leveraged with \$345K from partner agencies and \$8.5M in non-Federal matching funds provided by grantees, resulting in a total of \$13.7M in support



# NFWF CRCF Funding

- **Over \$13M committed to 145 coral projects**
- **Funding Partners:**
  - NOAA CRCP
  - The Harold K.L. Castle Foundation for [Hawaii](#)
  - The Natural Resources Conservation Service for [watershed](#) projects
- **Grantees have leveraged \$8.4M (1.7:1 match)**
- **Primarily small grants (< \$50 K)**

| Funding Leverage, 2002-2006 |           |             |              |
|-----------------------------|-----------|-------------|--------------|
| NOAA CRCP                   | Partners  | Challenge   | TOTAL        |
| \$4,838,704                 | \$116,560 | \$8,416,622 | \$13,371,885 |

| Funding by Grantee Category    |     |
|--------------------------------|-----|
| Non-Profit                     | 79% |
| For-Profit                     | 1%  |
| Federal Agency (International) | 2%  |
| State / Local Government       | 6%  |
| Education                      | 11% |

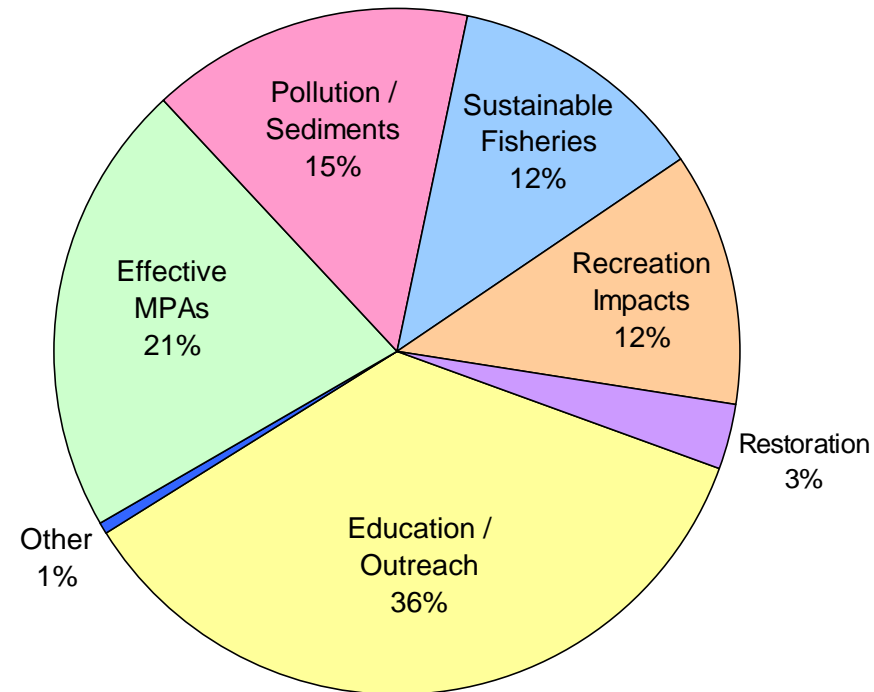
# NFWF Coral Reef Conservation Fund Priorities

- Build local public-private partnerships to reduce and prevent degradation of coral reefs and reef habitats
- Provide solutions to specific problems, mitigate or otherwise address specific threats to reef habitats
  - Increase the **effective management** of coral reef MPAs
  - Reduce impacts from **land-based pollution** and sedimentation
  - Reduce impacts from **recreational uses**, tourism, and boating
  - Reduce impacts from **over-exploitation** of coral reef resources
  - Promote **recovery** of reefs and associated habitats
  - Increase **community awareness** and participation in coral reef conservation

# NFWF CRCF Projects by Category

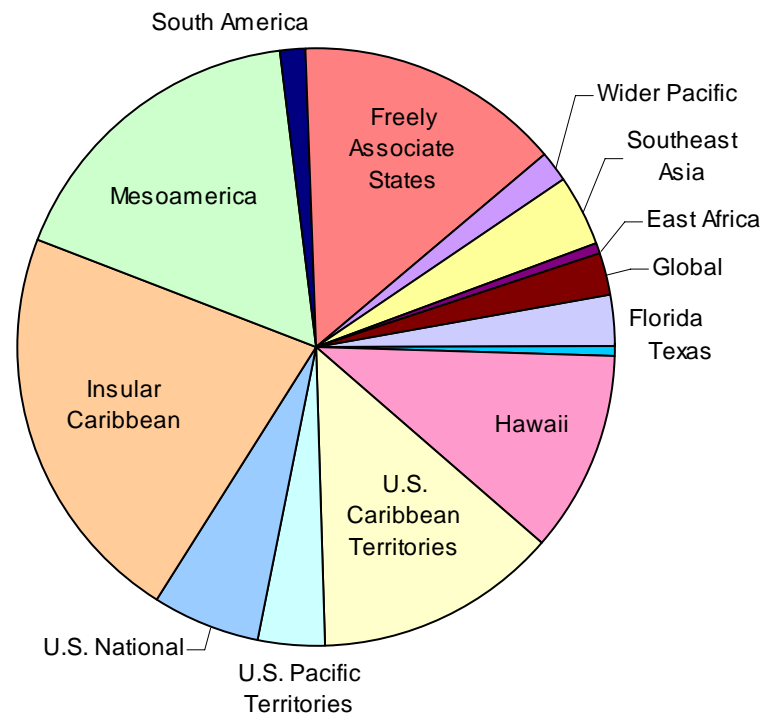
- Raise community awareness
  - Education (31 projects)
  - Stewardship (14 projects)
- Establish new / improve existing MPAs (34 projects)
- Reduce land-based sources (22 projects)
- Monitor / reduce unsustainable fisheries (17 projects)
- Reduce impacts of recreational uses (17 projects, including 13 Anchors Away)

Project Funding by Activity, 2002-2006



# NFWF CRCF Projects by Region

|                               |            | CRCP               | With Match          |              |
|-------------------------------|------------|--------------------|---------------------|--------------|
| <b>U.S. Projects</b>          | <b>51</b>  | <b>\$1,819,350</b> | <b>\$4,847,486</b>  | <b>36.3%</b> |
| Florida                       | 6          | \$144,758          | \$392,653           | 2.9%         |
| Texas                         | 1          | \$25,042           | \$51,142            | 0.4%         |
| Hawaii                        | 15         | \$539,859          | \$1,419,008         | 10.6%        |
| U.S. Caribbean Territories    | 16         | \$639,912          | \$1,891,986         | 14.1%        |
| U.S. Pacific Territories      | 6          | \$191,460          | \$610,812           | 4.6%         |
| National                      | 7          | \$278,319          | \$481,885           | 3.6%         |
| <b>International Projects</b> | <b>94</b>  | <b>\$3,160,736</b> | <b>\$8,524,400</b>  | <b>63.7%</b> |
| Insular Caribbean             | 34         | \$1,106,256        | \$2,891,592         | 21.6%        |
| Mesoamerica                   | 24         | \$857,579          | \$2,289,025         | 17.1%        |
| South America                 | 2          | \$66,000           | \$186,600           | 1.4%         |
| Freely Associate States       | 19         | \$712,984          | \$1,934,195         | 14.5%        |
| Wider Pacific                 | 3          | \$79,500           | \$303,100           | 2.3%         |
| Southeast Asia                | 7          | \$206,017          | \$629,421           | 4.7%         |
| East Africa                   | 1          | \$15,000           | \$33,067            | 0.2%         |
| Global                        | 4          | \$117,400          | \$257,400           | 1.9%         |
| <b>TOTAL</b>                  | <b>145</b> | <b>\$4,980,086</b> | <b>\$13,371,885</b> |              |



# Challenges

- The broad array of annual CRCP grants provides many opportunities for applicants, but also significant administrative burdens on both applicants and NOAA
- Statutorily established regional funding allocations and limited CRCP grant funds has resulted in worthy projects not being selected
- 1:1 non-federal match requirements are difficult some applicants, such as for academic researchers who rely on federal funding for their support
- In some cases, activities proposed under one grant program address different priorities than those of the local jurisdiction; in rare stances there have been conflicts between proposed projects and local priorities

# Challenges

- Funding particular management or monitoring projects is only as successful as the capacity of Governments and NGOs to undertake and maintain long term projects
- 2006 Congressional appropriation for NURP significantly reduced CRCP Research Grants
- Developing a catalogue of all reports and products would be desirable
- An overall evaluation of the effectiveness of the complete CRCP grants program could help fine tune the overall approach