

A banner at the top of the slide features a collage of coral reef images and the text "CORAL REEF CONSERVATION PROGRAM" in white capital letters. The NOAA logo is visible in the top right corner of the banner.

Reduce Threats to International Coral Reefs

Program Review
NOAA Coral Reef Conservation Program
September 25th, 2007

Overview

U.S. National Action Plan to Conserve Coral Reefs

- Goal 11: ***Reduce Threats to International Reefs***

Global Warming / Climate Change	H
Overfishing	H
Destructive Fishing Practices	H
Habitat Destruction	H
Coastal Development	H

Coastal Pollution	H
Sedimentation & Runoff	H
Overuse from Tourism	H
Vessel Groundings	H
Vessel Discharges	H

Extreme Biotic Events	M
Invasive Species	M
Marine Debris	M
Diseases	L
Hurricanes / Typhoons	L

Overview

Strategy to Reduce International Threats

(U.S. National Action Plan to Conserve Coral Reefs)

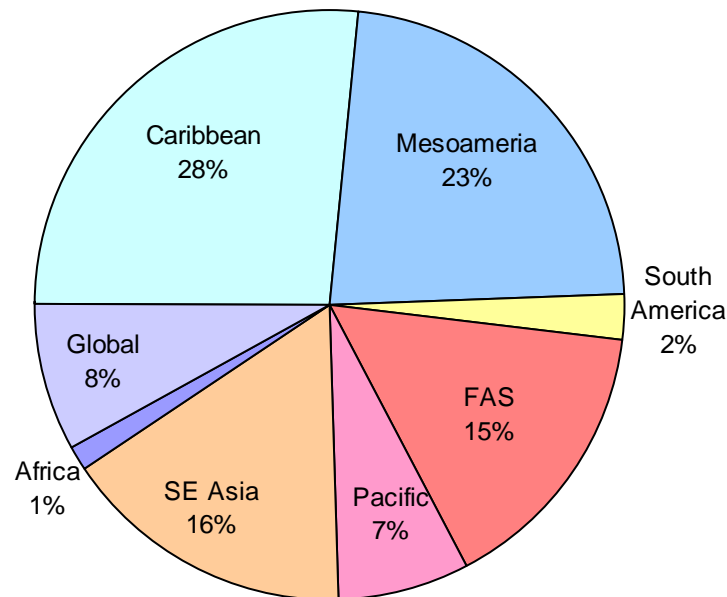
- **Objective 1:** Exercise global leadership to shape and develop environmentally sound and comprehensive ocean and coral reef policy.
- **Objective 2:** Build human and institutional capacity to manage and conserve reef ecosystems and coastal watersheds through integrated coastal management.
- **Objective 3:** Promote efforts to prevent, reduce and control land-based sources of pollution and their effects on coral reef ecosystems.
- **Objective 4:** Support the creation and effective management of coral reef MPAs, particularly those that contain substantial ecological (*i.e.* no-take) reserves.
- **Objective 5:** Address the impact of global change, coral bleaching, and coral health on reefs and people.
- **Objective 6:** Address unsustainable and destructive fishing practices and the U.S. role in and impact on international trade in coral reef species.

Overview

CRCP Investments to Reduce International Threats

- Funding: \$6.4 M (5% total CRCP)
- Projects: 193 (15% total CRCP)
- Major tools:
 - 43% Management: Direct Implementation
 - 21% Mapping and Monitoring
 - 13% Outreach
 - 12% Management: Training/Technical Assistance

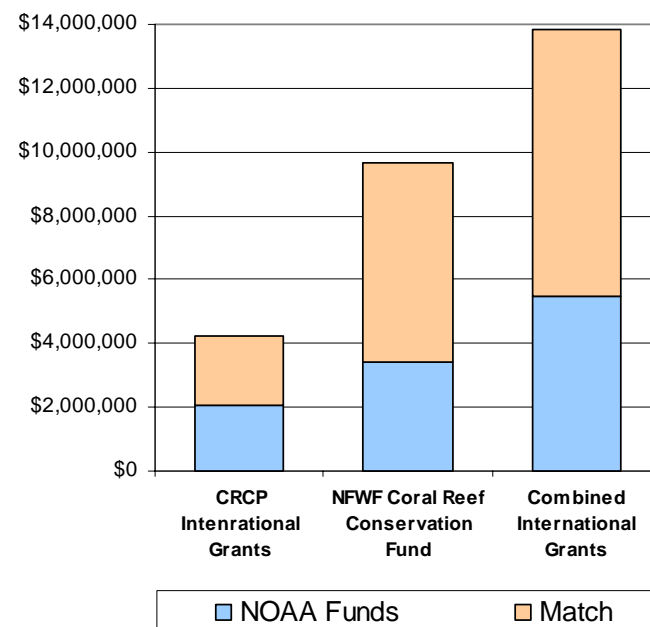
International Threats:
Funding Distribution



CRCP International Grants

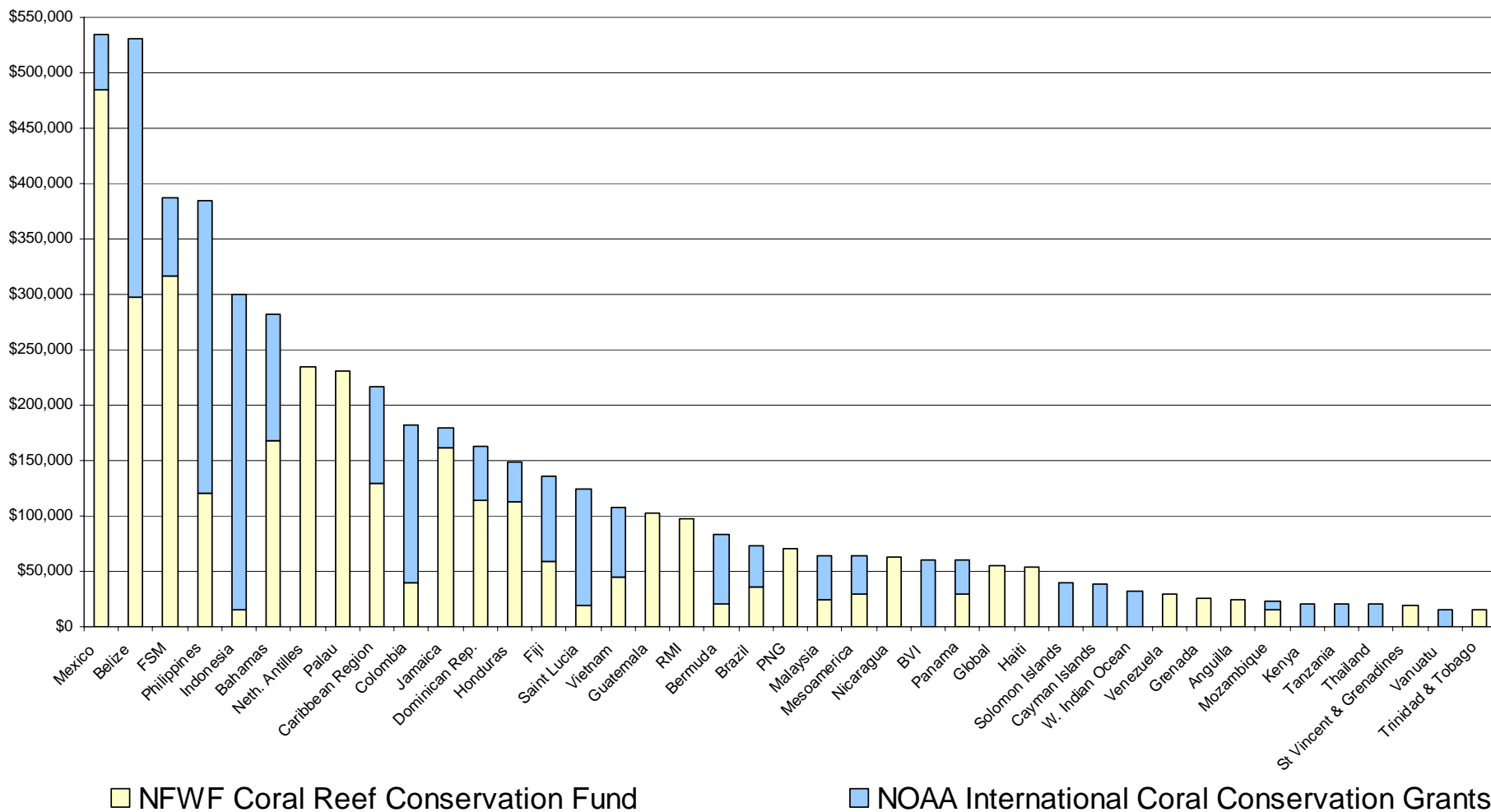
- **Funding: \$5.5M (84% of entire category)**
- **Leveraged Funds: \$8.4M**
- **Two International Grant Programs**
 - CRCP International Coral Grants
 - NFWF Coral Reef Conservation Fund
- **161 Projects**
- **37 Countries**
- **All subcategories (except International Trade, which is mostly covered by the internal program)**

CRCP International Competitive Grants,
2002-2006





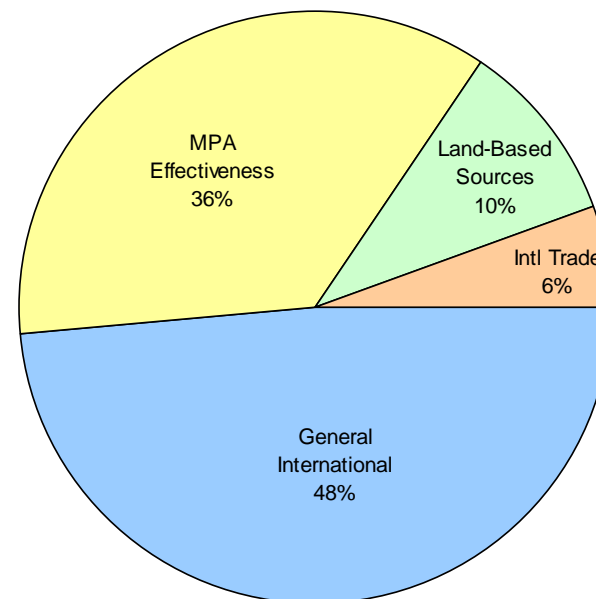
CRCP International Grants: Funding Distribution



International Threats: Subcategories

1. General International (\$3.0M)
2. Increase Use & Effectiveness of MPAs (\$2.6M)
3. Reduce Land-Based Sources of Pollution (\$0.6M)
4. Reduce Impacts of International Trade (\$0.3M)

International Threats:
Investment by Subcategory



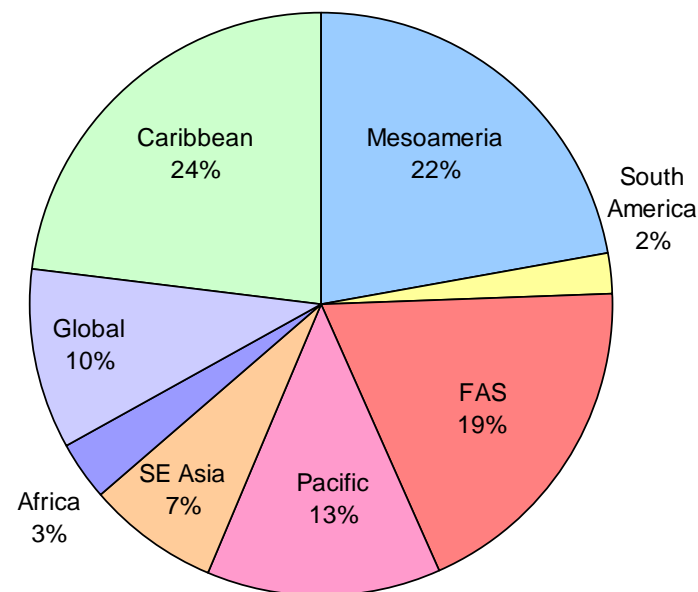
Subcategory 1: General International

- \$3.0M, 91 Projects
 - \$2.2M for Grants (74% of subcategory)
 - \$765K for promoting biophysical / socio-economic monitoring protocols

- Major Activities:

- Bio-physical Monitoring
- Socio-economic Monitoring
- Community-based Management
- Education & Outreach

General International:
Funding Distribution



General International: Outputs/Outcomes

Non-grants: Monitoring Support

- Global Coral Reef Monitoring Network (GCRMN)
- Integrated Coral Observing Network (ICON) Stations
- Monitoring Support for the Freely Associated States of Micronesia
- Global Socioeconomic Monitoring Initiative



Competitive Grants: Multiple Themes

- Local Capacity-building
- Stakeholder / Community-based Management
- Regulation Development & Enforcement
- Outreach and Education



General International: Outputs/Outcomes

Anchors Away! Program

- Mooring Buoys & MPA Identification
- \$475K, 13 projects
 - Punta de Manabique, Guatemala
 - Exuma Land and Sea Park, Bahamas
 - Banco Chinchorro Reserve, Mexico
 - Goff's Caye, Belize
 - San Andres Archipelago, Colombia
 - Saba National Marine Park, Netherlands Antilles
 - Morrocoy & Los Roques National Parks, Venezuela



General International: Outputs/Outcomes

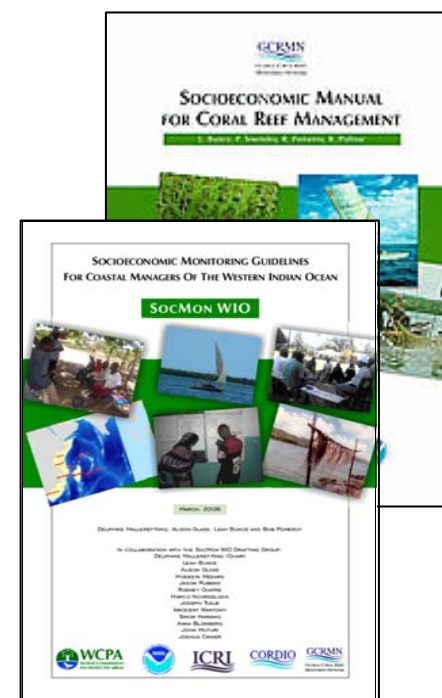
GCRMN Reports:

- Status of Coral Reefs of the World, 2002, 2004
- Status of Coral Reefs in Tsunami Affected Countries
- Socioeconomic Manual for Coral Reef Management



General International: Outputs/Outcomes

- To date, regional socioeconomic monitoring guidelines for coastal management have been produced for:
 - **Caribbean** (English, Spanish)
 - **Southeast Asia** (English, Tagalog, Vietnamese)
 - **W. Indian Ocean** (English, French, Kiswahili, Portuguese)
 - **Pacific** (English, French - forthcoming)
- SocMon assessments have been completed in more than 40 sites worldwide and the data collected is being used for adaptive management in these sites.
- A web-enabled Global SocMon Database has been created and is being populated with data. A synthesis of this information will be included in the GCRMN 2008 Status of Coral Reefs of the World report.
- New SocMon programs are under development in South Asia and the Red Sea regions.

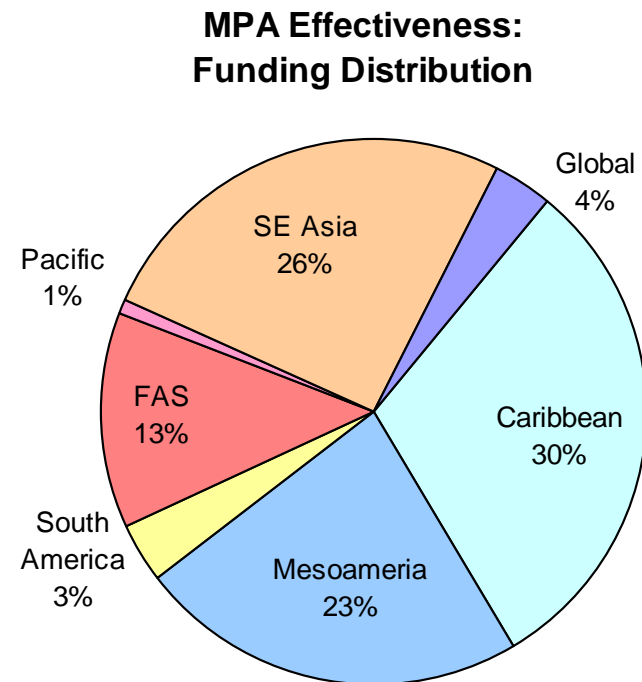


General International: Challenges/Future Directions

- Changes in program priorities at NFWF, NOAA & partners
 - SocMon
 - Anchors Away
- Some applicants have not written proposals that address the requirements of the program, including a comprehensive suite of local partners and an educational component to broaden community and stakeholder interest in the value and utility of mooring buoy programs.

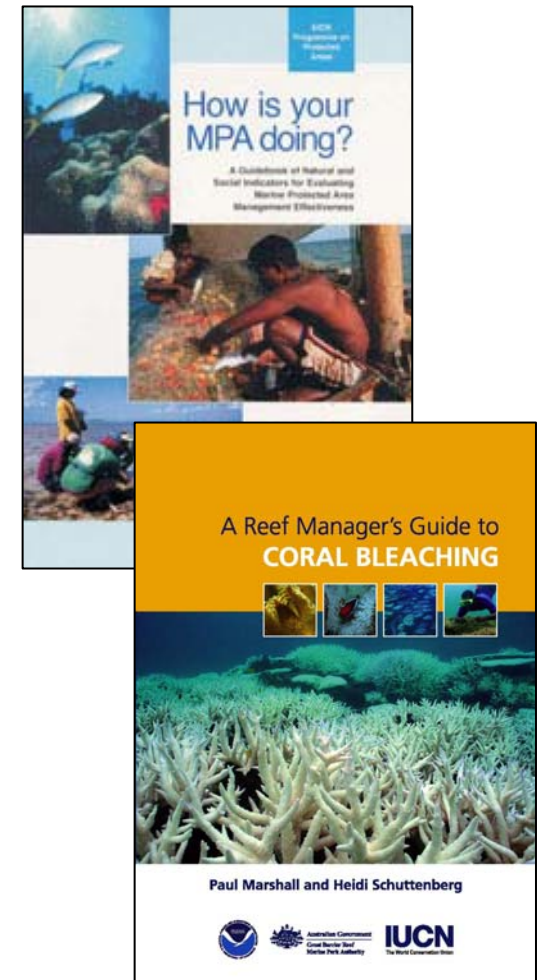
Subcategory 2: Increase Use & Effectiveness of MPAs

- \$2.6M, 78 Projects
- \$2.4M for Grants (92% of subcategory)
- \$201K for methodology development, pilot studies and methodology promotion (manuals, workshops)
- Major Activities:
 - MPA Performance Evaluation
 - Adaptive Management
 - Regional Networks
 - Bleaching / Resilience



MPA Effectiveness: Outputs/Outcomes

- “How Is Your MPA Doing” Guidebook published in five languages
- Coral funding played key role in piloting the methodology in 12 global coral sites, including Guam
- Methodology has been implemented in at least six coral MPAs
- Site based implementation was supplemented by training workshops in the methodology as well as in management planning
- Targeted program influenced development of national and subnational methodologies (Philippines) and supported a global dialogue on management effectiveness in MPA practitioner and political circles



MPA Effectiveness: Challenges/Future directions

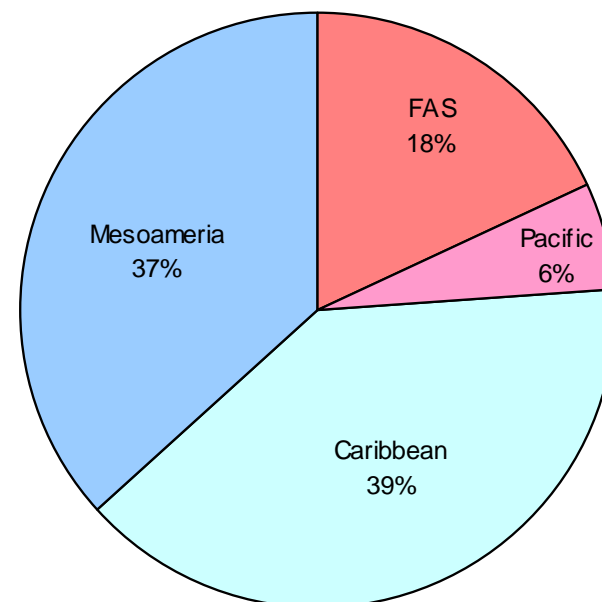
- New priority is being given to regional training programs that include site based work to build the community of practice
- Institutionalization of management effectiveness approaches remains a challenge
- Consideration may be given to:
 - Second-year funding opportunities to implements results of effectiveness review
 - Raising profile of ME processes in existing MPA training programs



Subcategory 3: Reduce Land-Based Sources of Pollution

- \$538K, 15 Projects
- 100% Grants primarily in Wider Caribbean region (76%)
- Major Activities:
 - Public Awareness
 - Research and Assessment
 - Protection and Restoration
 - Capacity Building

Land-based Sources:
Funding Distribution



Land-Based Sources: Outputs/Outcomes

- The Yucatan Environmental Foundation found that upgrades to wetlands to reduce sewage and storm water runoff were not succeeding to efficiently remove contaminants.
 - New partnerships have emerged among government, engineers and waste water management agencies to study ways to improve/implement wetland construction on a larger scale.
- Soufriere Marine Management Area published a new Manual of Methods for Environmental Monitoring and Assessment of the Infrastructure for Improved Wastewater Management in Soufriere.



Land-Based Sources: Challenges/Future Directions

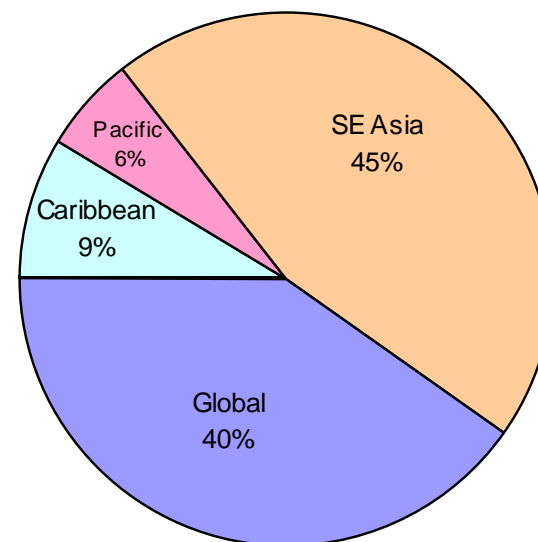
- The NFWF Coral Reef Conservation Fund has generally been more successful than the NOAA International Coral Reef Conservation Grants Program in attracting quality projects.
- It may be timely to rationalize the two approaches between the grant programs in light of the greater interest of applicants in the NFWF program.



Subcategory 4: Reduce Impacts of International Trade

- \$298K-mostly internal funds, 11 Projects
- 7% Grants (2 projects)
- Address key species groups to advance USG CITES Goals in specific locations where possible
- Major Activities:
 - Mapping and Monitoring
 - Technical Assistance
 - Management Implementation
 - Ecosystem Research

International Trade:
Funding Distribution



International Trade: Outputs/Outcomes

- Live Reef Food Fish Trade (LRFFT): Partnership among countries, APEC, CITES, and CRCP General Grants Program:
 - Successful CITES Appendix II listing proposal for humphead wrasse;
 - Capacity building in Indonesia to implement a management plan, reporting scheme, and research to require non-detriment finding for export of humphead wrasse; and
 - Characterization of LRFFT in Marshall Islands and development of recommendations to reduce overfishing and associated impacts to other reef species and habitats.
- Stony Corals and Live Rock
 - Annual assessment of the volume of coral in trade
 - Capacity building workshops
 - Comparative assessments in Indonesia of existing harvest and export quotas vs. resource abundance and condition
 - Characterization of coral industry/live rock in Fiji
 - Development of tools and measures for enhanced reporting and enforcement re CITES



International Trade: Outputs/Outcomes

- Multi-Year Initiative to address threats linked to [Sea Horse Trade 02-04](#)
 - Conducted Pacific range-State workshop to evaluate existing information on biology, population status, fisheries, and trade
 - Successful U.S. submission to list all species of seahorses on Appendix II
 - Joint capacity building workshop in Mexico to consider management approaches to ensure legal, sustainable & enforceable SH trade under CITES
- Address the use of cyanide in capture of ornamental fish and food fish
 - Establish a regional network for CDT labs
 - Support NGO efforts to train fishers in use of nets instead of cyanide
 - Identify suitable test for use in field and at import end



International Trade: Challenges/Future directions

- Limited funding could be expanded
- Current 8 themes will be maintained to foster partnerships to CITES and FAO to:
 - Improve both CITES/FAO trade mechanisms; and
 - Build capacity of exporting/importing capabilities to ensure sustainable trade consistent with those mechanisms.





Conclusion - Strengths

- Flexibility – grants and internal program
- Most grants are highly leveraged, are low cost and generally cost effective with partners at local level
- + Grants programs are client driven
- Emphasis on Management and Capacity Building
- Targeted funding to leverage USG priorities and capabilities/tools
- Key role in increased global awareness

Conclusion – Looking Ahead

- Limited funding/growing global threats
- Managing emerging priorities: climate change and enforcement
- - Grants programs
 - Client driven: Limited prioritization of countries
 - Most funding is not multi-year funding
- Address sustainable fisheries
- Reinvigorate NOAA/interagency international coordination



External Program Review - September 2007