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# *Red Sea Case Study:* **Financing Marine Management and Sustainable Tourism**

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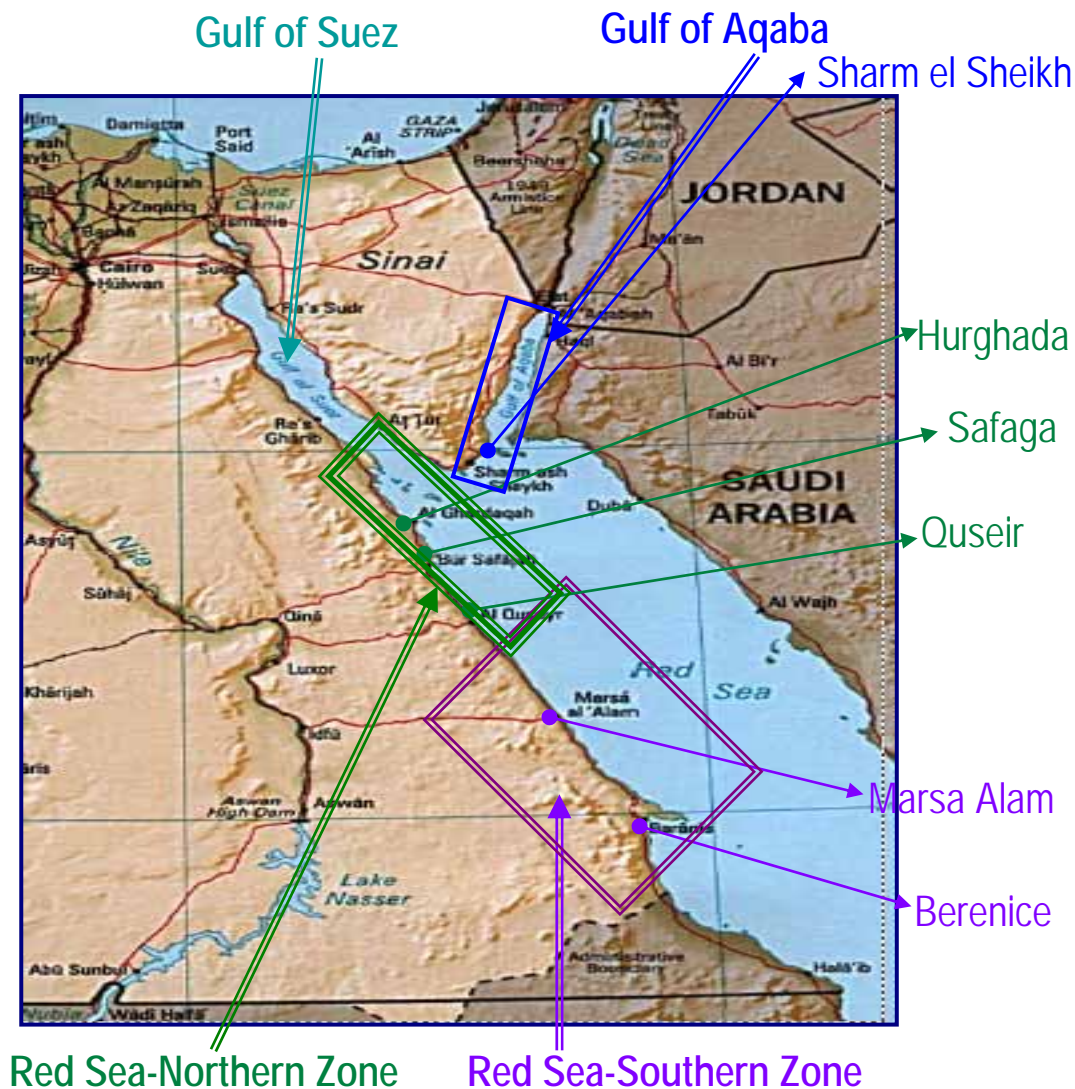
Arusha, Tanzania  
February 22, 2006

# Presentation goals

## Use a large and complex case to demonstrate:

- A *systems* approach to providing sustainable funding for management of marine-based tourism
- Data needs
- Economic tools and methods
- An array of market mechanisms
- Processes to use
- A variety of issues that can come up

# USAID/Egyptian Environmental Policy Program (1999-2003)



# Red Sea Program Goals

## Overall:

*To manage one of the longest, most biodiverse, and most visited coral reef systems in the world for sustainable economic benefits*

**Policy Measure 2.2 = *How to pay for this?***

## **Who was involved:**

- **2 GoE Ministries, 2 Agencies**
- **Red Sea Governorate [and Sinai]**
- **Main Donors - USAID [and EU for Sinai]**
- **Tourism industry value “web”**
- **Tourists & other stakeholders**

# Some Context

1. **Extreme population pressure in Nile Valley (~75M)**
2. **\$3 Billion invested in TDA areas alone by 2000 (\$1/m<sup>2</sup> for land)**
3. **From 11k to ~3M visitors/year in 20 years (1980-2000)**
4. ***Direct* reef-related tourism expenditures ~\$470M/yr**
5. **GoE still planning more development: \$11-\$13B by 2017**
6. **Lack of GoE capacity to manage**
7. **Complex, highly differentiated tourism market**
8. **Economic fragility** (subsidies, terrorism shocks, liquidity crisis)
9. **Boom and bust cycles** (>price variability by country of origin)
10. **Ecological fragility** (golden egg threatens the goose)

# The “Chicken & Egg” Paradox

*Which should come first?*

- **“Chicken”** - declaring protected areas before achieving capacity to manage them
- **“Egg”** - charging visitors to raise resources needed to build that management capacity

*How does one resolve a paradox?*

# Steps to the process

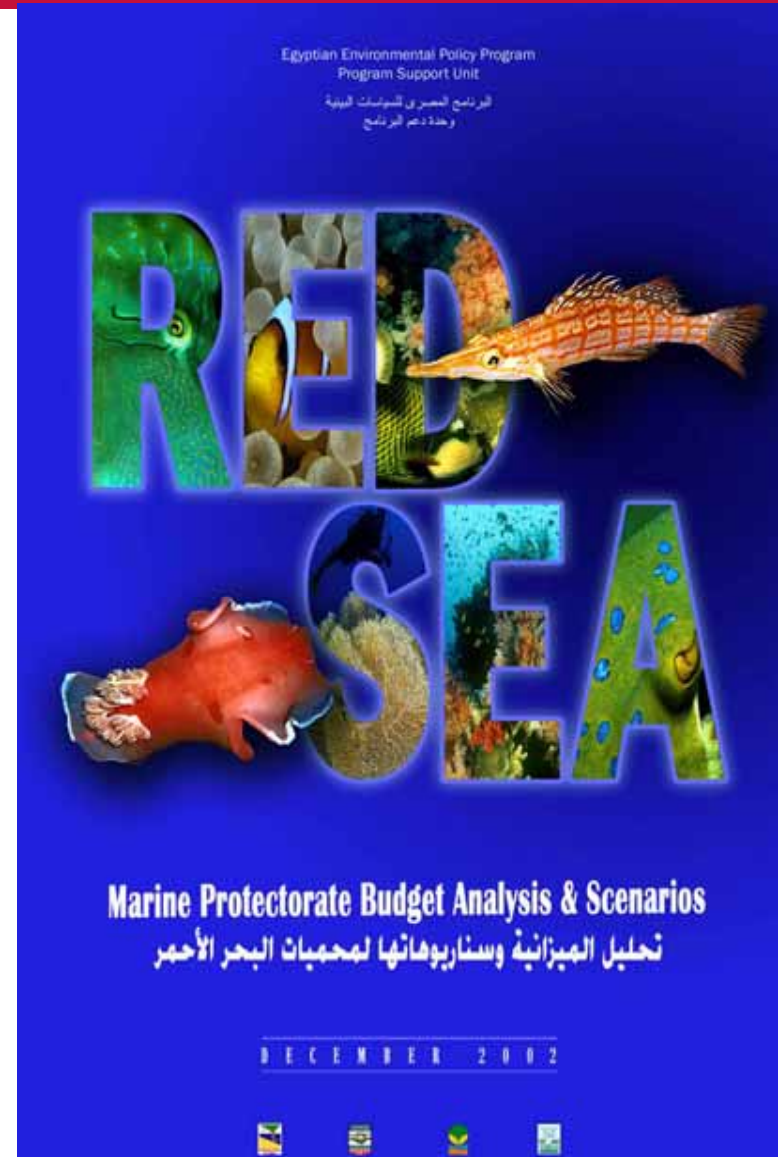
1. Estimate financial needs (budgeting)
2. Data collection and analysis
  - a) Existing revenue collection, distribution mechanisms
  - b) Visitation and revenue statistics
  - c) Willingness of stakeholders to pay
  - d) Ecosystem services valuation
3. Evaluate revenue *generating* mechanisms
  - a) Revenue potential
  - b) Implementation costs
  - c) Systemic issues: social, political, legal, institutional
4. Evaluate revenue *distribution* mechanisms

# Step 1) RSMP Future budget projections

- Past budget analysis
- “Strategic Vision” workshop

*What factor(s) drive costs most?*

- 3 Future budget scenarios:
  - **LOW** = staffing trend (80 by 2007)
  - **HIGH** = staffing goal (250 by 2007)
  - **MEDIUM** = split the difference (165)



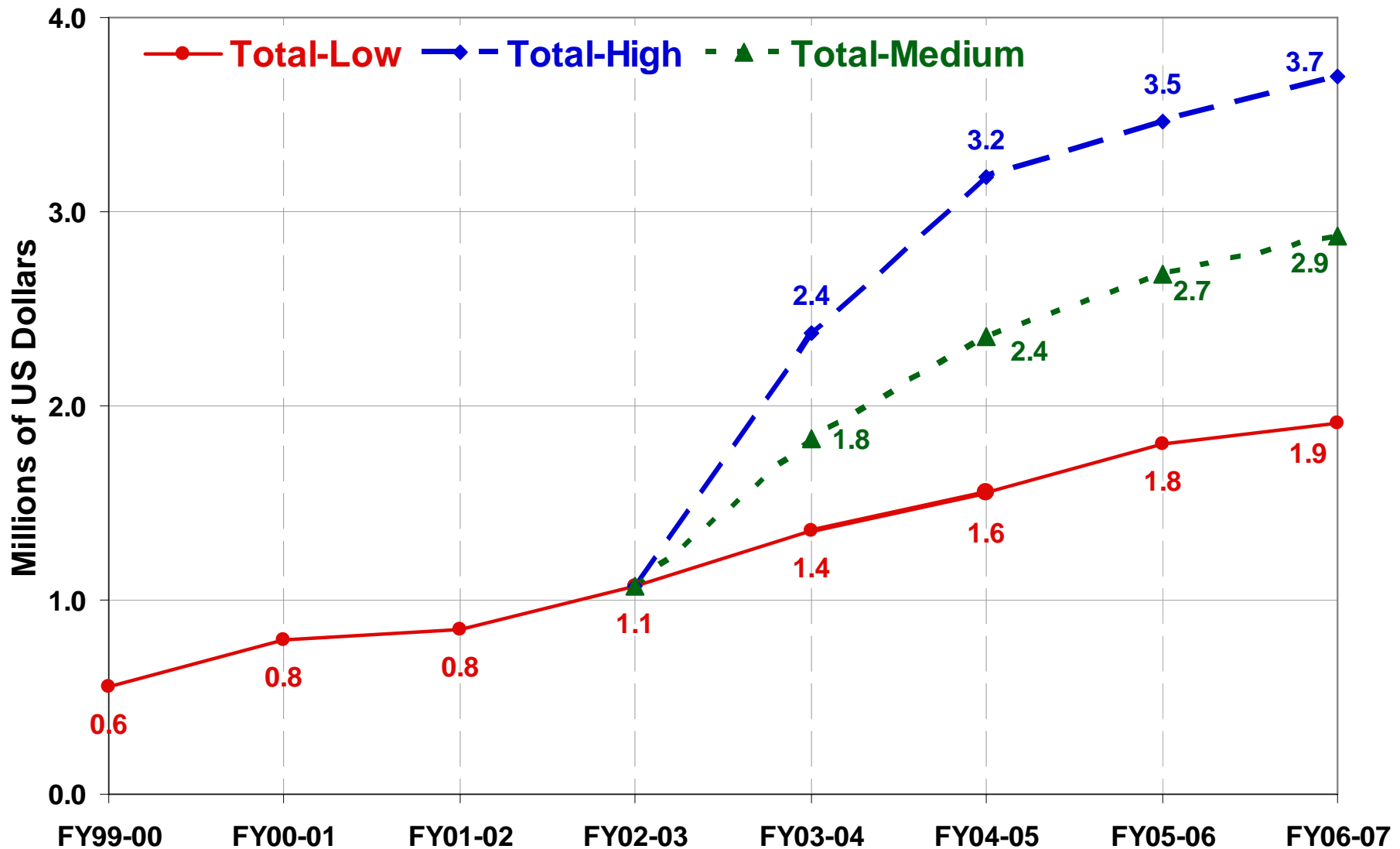


# Building the budget scenarios

Based on unit costs of 125 line items, in 3 broad categories:

- **Recurrent operations**
- **Capital investments**
- **Training & communications**
- **Different quantities of each for each scenario**
- **7-page spreadsheet per scenario**

# Red Sea Marine Park Budget Scenarios



## Step 2a) Existing revenue mechanisms

1. **RSMP daily tickets; prices vary by site & activity** (\$0, \$1, \$2/3, \$5/35)
2. **Governorate's "environmental service fee"** (~\$1/day on all divers, ~\$0.50/day on snorkelers *throughout Governorate*)
3. **Giftun Island concession operation**
4. **Boat license & inspection fees**
5. **Marina berth fees**
6. **Fines: ship accidents, anchor damage, sewage violations**

*What kinds of issues might be important?*

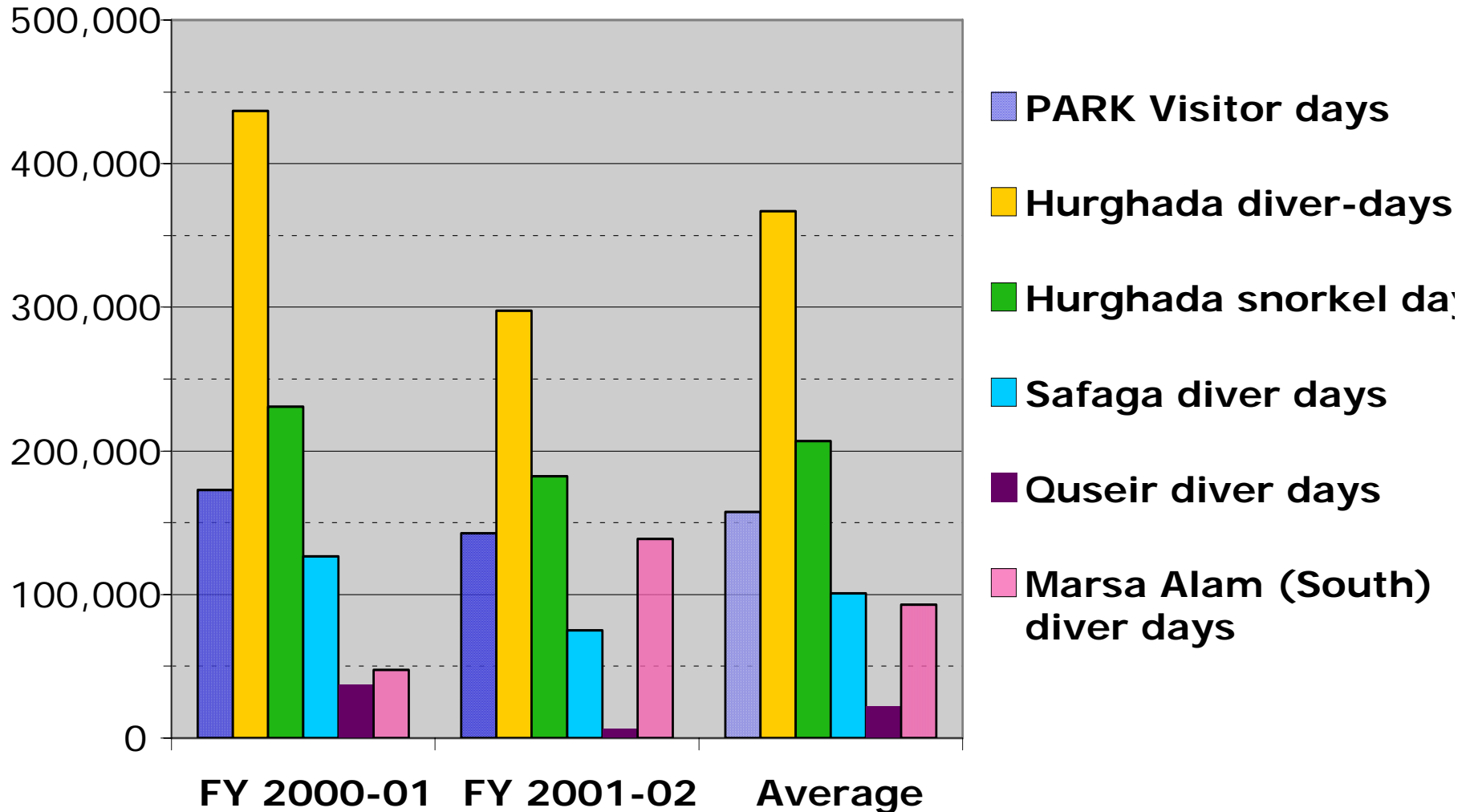


# Mechanism issues

- **Poor geographic coverage - where fees are applied**
- **Different rates for different sites (*pros and cons*)**
- **Even then, fees not always evident**
- **Inefficiency of the ticket sale/\$ collection system**
- **Fee evasion**
- **Not returning earnings to park & local communities**

## Step 2b) Park vs. Governorate Visitation

(according to park ticket sales records and environmental tax receipts)



# Step 2c) Willingness to Pay Survey\*

- 500 tourists in *Sharm el Sheikh* and *Hurghada* (250 each)
- 40 tourism operators (dive centers, hotel & restaurant managers, travel agents)
- \*Actually used a combination of methods: *travel-cost*, *willingness-to-pay*, and *product/service satisfaction*

*Has anybody used these methods?*

*What are some key differences?*



البرنامج المصري للسياسات البيئية

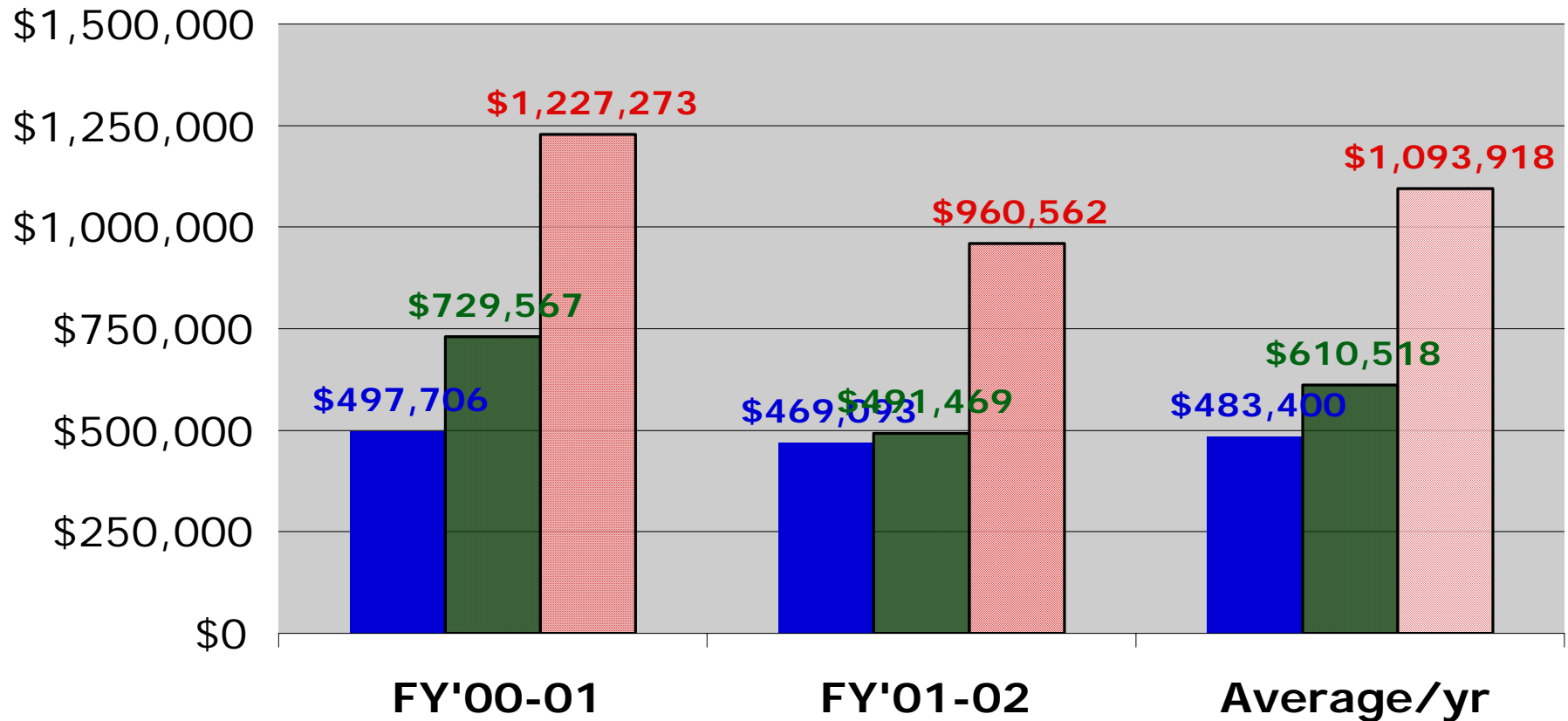
Egyptian Environmental Policy Program

**A Survey of  
Red Sea Tourists'  
and Tourism Operators'  
Willingness to Pay  
for Coral Reef  
Conservation**

Ibrahim Hegazy, Nahlah Mesbah,  
Michael Colby

June 2002

# Recent Direct Revenues to Government from Red Sea Governorate Diving & Snorkeling



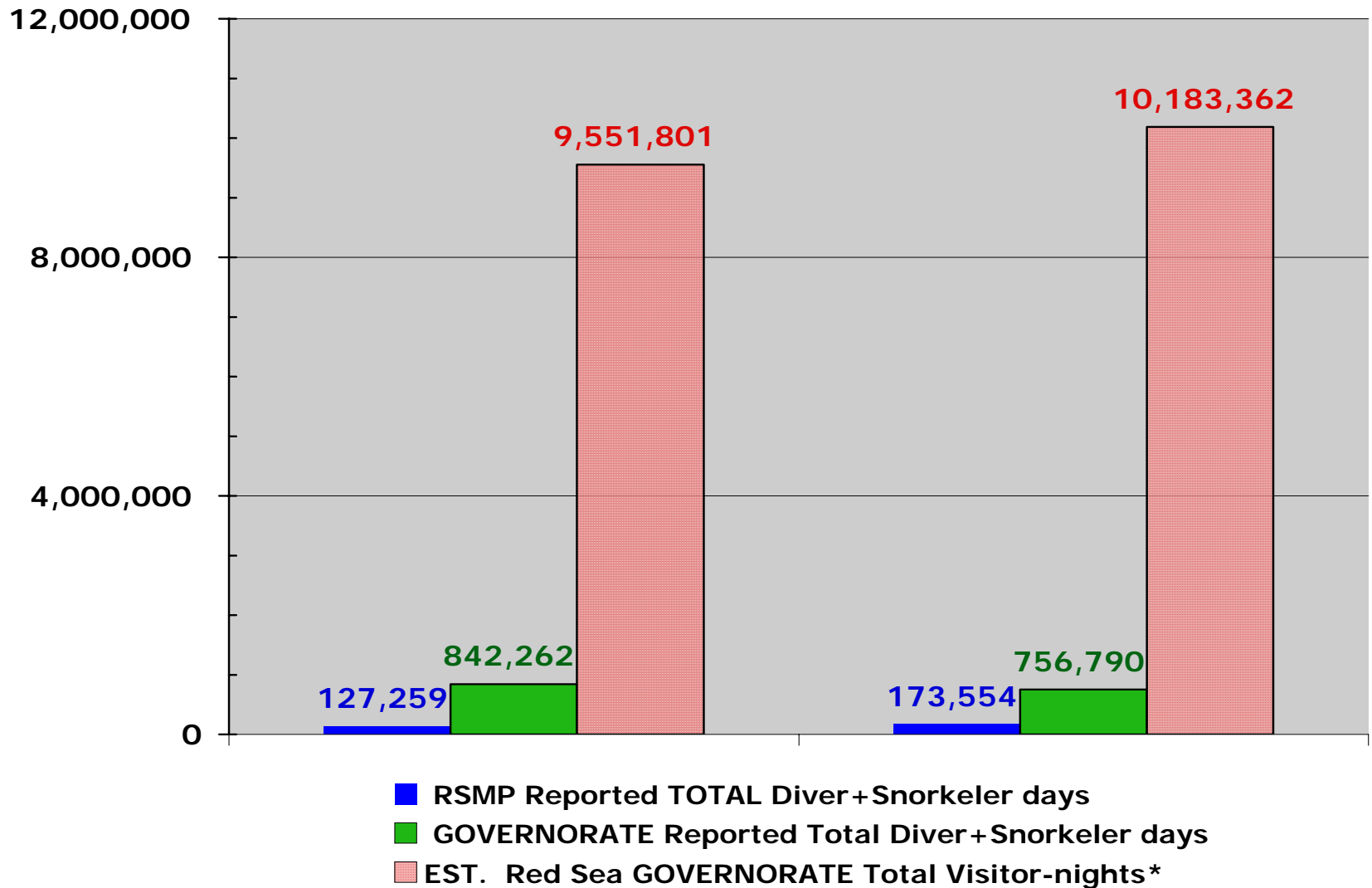
■ Total Park Revenue

■ Est. Red Sea Gov. Envir. Tax Revenue (\$)

■ Est. Total Red Sea revenues-current system

# Diving/Snorkeling vs. Overall Tourism Statistics

(according to park tickets, environmental tax, Gov. Dept. of Tourism)





# WTP: Key results from Tourists

- **Sharm** divers & snorkelers paid \$500 to \$2000, with **2/3 of divers (1/2 overall) spending over \$1000**
- **Hurghada's** visitors tend to pay less (**\$500-750 largest category**)
- 61-96% felt a daily fee of \$3-5 is fair
- **60-67% of divers, and 47% of snorkelers said willing to pay MORE**
- 43% of Giftuns (Hurghada Park) visitors interested in periodic passes rather than daily

# WTP: Key results from Tourism Operators

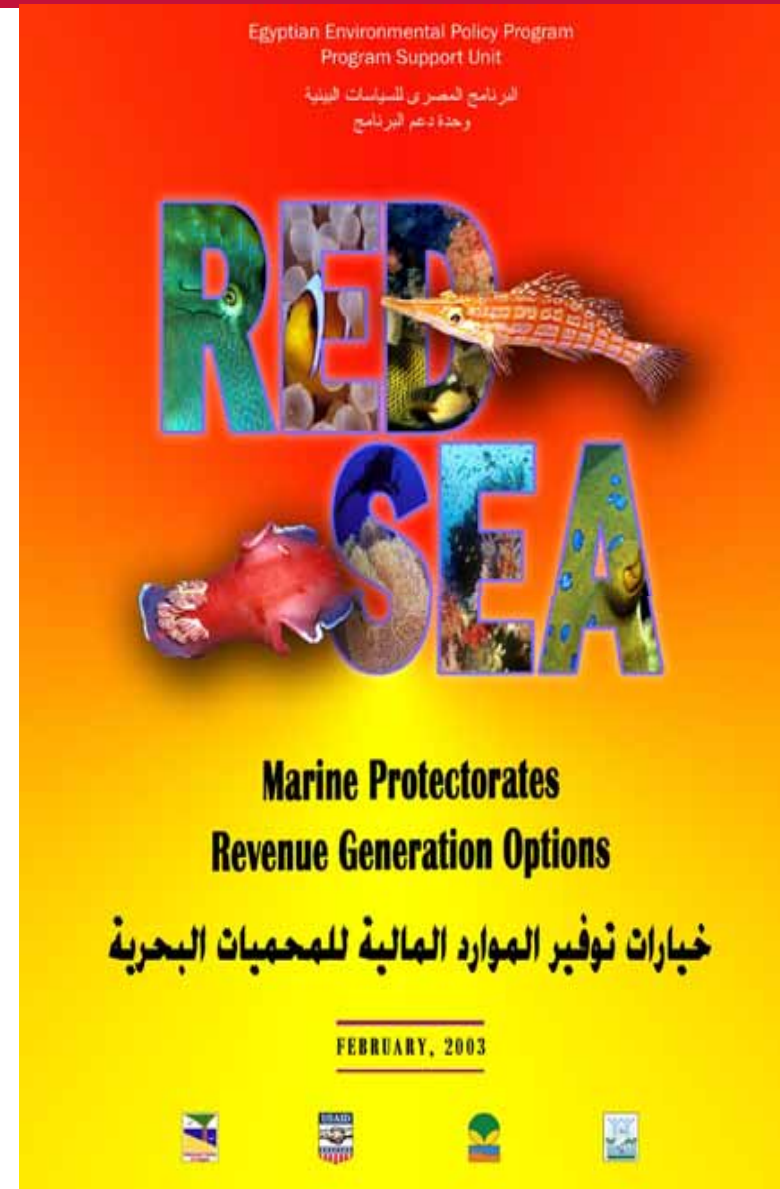
- Many supported **donation boxes** & better-targeted **tourism taxes**
- **Almost all supported *dedicated* entrance/user fees:**

*“Clients don’t object to paying fees as much as they criticize that this fee does not show up in improved environmental management services.”*

*“Rather than driving tourists away, fair user fees to fund such investment are vital to attracting the most valuable tourists.”*

# Step 3) Revenue Mechanisms investigated

- **Entry fees** (vary by type, duration, perhaps by area: divers, snorkelers, other watersports; daily, weekly, annual)
- **Other User/Service fees/taxes** (hotel rooms/ nights, mooring buoys, marinas, tradable dive boat licenses)
- **Permit fees** (research, mining, bio-prospecting, construction, fishing, hunting, extraction)
- **Concession fees** (food and beverages, tour operators)
- **Fine enforcement** (shipping & anchoring accidents, improper coastal development, sewage or chemical discharges)
- **Product sales** (calendars, CDs, books, posters, t-shirts)
- **Adoption/membership programs** (“Friends of the Red Sea”...)



# Alternatives to daily entrance fees

## Plastic annual entry tags from Bunaken National Park, Indonesia

2001 Bunaken Tag:



2002 Bunaken Tag:



Source: Erdman, 2002b. Announcing the Bunaken 2003 Entrance Tag Design Contest!

***What other ways are there to do an annual fee?***

***What are some pros and cons of this approach?***

# Disadvantages of *Annual* Airport Stamp/Tag

- **Fairness of charging all visitors to Governorate the same fee?**
- **Weak ministry (Environment) vs. strong (Tourism) & private sector**
- **Other ministries want piece of \$ pie**
- **May require new legislation**

*How [can] these obstacles be overcome?*

# Advantages of an *Annual* Airport Stamp/Tag

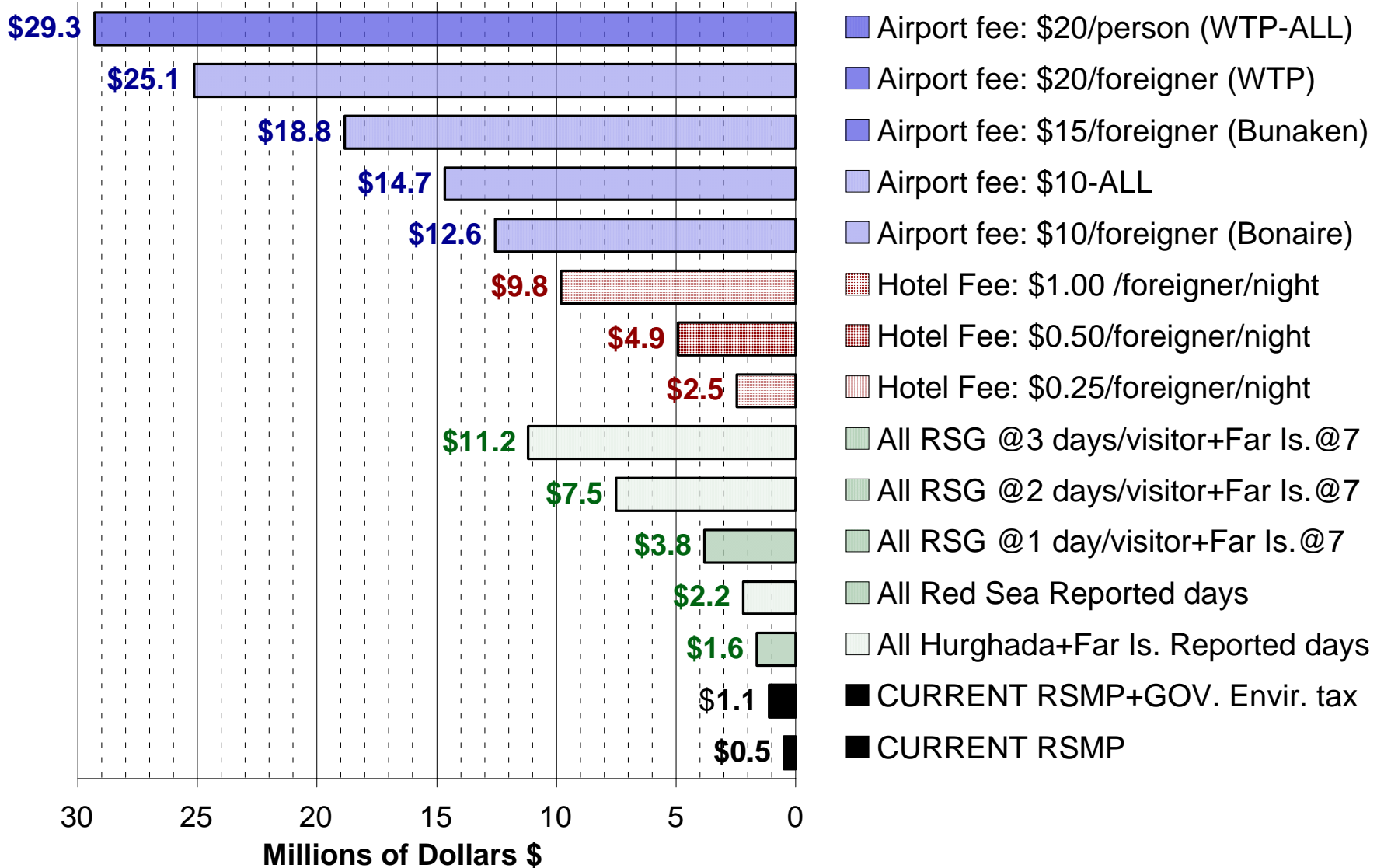
*Similar to Bonaire and Bunaken, but **easier** to administer:*

- **Simplest/most efficient to collect**
- Limited entry points (2) reduce fee evasion
- **Frees Rangers to focus on substantive work**
- Reduces effort required from tour operators
- **Egyptians can do multiple trips on one pass**
- Park boundary changes NOT a prerequisite  
*(resolves chicken and egg paradox)*

## Step 4) **Most promising revenue options**

1. **Increase/rationalize *Park-based daily* entrance rates**
2. **Expand area where day ticket system is applied to *ecosystem***
3. **Increase daily *Governorate* environmental fee rate**
4. ***Annual* pass/tag/stamp**
5. ***Combination* of above**

# Potential Revenue Summary





## Step 5) Revenue Distribution

### Existing system:

- All park revenues go to Egyptian Environmental Protection Fund (EPF)
- 90+% of EPF's revenue comes from the Red Sea/Gulfs (from reef damage fines, entrance fees)
- No share earmarked for return from EPF

**Need a system that fairly shares revenues between RSMP, EPF, Governorate**

***Should the Park be entitled to a percentage of the revenue it generates, or another approach?***

# Conclusions I (Design)

**Key system *design* issues** (this case):

- **Resolving 'egg paradox' - *ecosystem services user fee vs. park entrance fee***
- **Reducing transaction costs, evasion**
- **Industry/government participation and education**
- **Differing measures of efficiency**
- **Legal authority**

***Systemic Understanding +  
Interaction, Interaction, ...***

# Conclusions II (Implementation)

## *Key implementation issues:*

- Use power of policy champion(s), sticks
- Pre-announce fee changes (1 year) and stick to it
- Communicate uses of funds (plans *and* achievements)
- Collection by appropriate institution
- Revenue sharing agreement with key institutions