ANALYSIS ON THE SUSTAINABLE FINANCING OF A NETWORK OF MARINE PROTECTED AREAS IN SOUTHEAST ASIA

Vth IUCN World Parks Congress

Finance and Resources Stream: Regional Case Studies

Durban, South Africa, September 2003

Conservation and Community Investment Forum (CCIF)

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September 2003

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Regional Action Plan – Sustainable Financing Component

The World Commission on Protected Areas' (WCPA) Southeast Asian Marine Working Group recently released their "Regional Action Plan to Strengthen a Resilient Network of Effective Marine Protected Areas in Southeast Asia in 2002-2012" ("RAP"). The RAP identified five high priority issues for the management of MPAs: 1) planning and design; 2) adaptive management; 3) coordination and enforcement; 4) community awareness and development; and 5) sustainable financing. As part of the sustainable financing component of the RAP, the Task Force has commissioned the Conservation and Community Investment Forum (CCIF) to develop a detailed set of cost projections for a network of MPAs, including full financial pro-formas, anticipated budget shortfalls, and potential local, national and international revenue sources. This paper details the methodology used in by CCIF in such effort, as well as conclusions related to the analytical work that CCIF has done in connection with the RAP.

Designing a Business Plan Solution

The Nature Conservancy's SEACMPA and CCIF believe that the first step towards developing a network of financially sustainable MPAs is to create a business plan which lays out a complete vision for how a healthy network of MPAs is to be funded. While this does not preclude the need to refine and implement specific local revenue generating mechanisms, it is critical that a comprehensive business plan which defines the needs and potential solutions for financing an entire network of MPAs in a given region is developed. This business plan should systematically address the financing of a set of planned or existing MPAs which combine high biodiversity value, high donor interest, and the greatest possible overlap among the interest of WCPA members. CCIF believes that the most effective approach in the funding of protected areas is one that addresses the diversity of needs most often found within eco-regional systems. At this point CCIF has conducted a full costing of the MPAs in Southeast Asia, and developed an endowment model that calculates the endowment size necessary to operate the these MPAs at different levels of sophistication. The structure of the endowment model analysis is as follows:

Assumptions

<u>Protected Areas Included in Analysis</u>:

- Wakatobi – Indonesia
- Cendrawasih – Indonesia
- Take Bone Rate – Indonesia
- Komodo – Indonesia
- Bunaken – Indonesia
- Karimunjawa – Indonesia
- Thousand Islands – Indonesia
- Ujung Kulon – Indonesia
- Bali Barat – Indonesia
- Turtle Island – Philippines
- El Nido – Philippines
- Tubbataha – Philippines
- Malampaya Sound – Philippines
- Apo Reef – Philippines

Data Sources: Site cost and revenue data estimates were provided by a number of parks, including:

- Komodo – Indonesia
- Bunaken – Indonesia
- Karimunjawa – Indonesia
- Tubbataha – Philippines
- Con Dao – Vietnam
- Wakatobi – Indonesia

Cost Categories: All cost data were divided into seven cost categories:

- Park initiation / establishment
- Legal / policy framework
- Stakeholder engagement, community development, and education
- Protection / enforcement
- Park management and planning
- Ecological monitoring and restoration
- Marketing and tourism

Revenue Categories: All revenue data were divided into four categories:

- Tickets and fees
- Merchandise revenue
- Royalties revenue
- Other licensing revenue

Structure of Analysis

Step 1: Each marine park was categorized into one of four different "archetypes" that were developed based on park size, remoteness, complexity of threat, and revenue potential. The analysis assumes that financial needs and revenue profiles of parks will vary across archetypes as a result of differences in these characteristics. The park archetypes are:

Group 1: Flagships – Very large sites, complex threats, with very high revenue potential

Group 2: Central Parks – Medium to large parks, in close proximity to population with corresponding threats, moderate revenue potential

Group 3: Hidden Jewels – Small, highly defined threats, typically remote, with low revenue potential

Group 4: Pocket Parks – Extremely small, in close proximity to population, moderate revenue potential

Step 2: The analysis identified two "levels of intensity" at which park management can occur. Level 1 assumes parks are managed to achieve resource stabilization only. Level 2 assumes that parks are managed to achieve resource viability (ecological restoration) and establishment of sustainable local livelihoods. The seven identified cost categories and four identified revenue categories vary according to level of intensity. The model allows the phasing in of parks over time at different levels of service.

Step 3: Cost estimate ranges for the seven cost categories were developed for each park archetype for Level 1 and Level 2 intensity. Estimates were derived based on cost data provided by a number of marine parks as well as interviews and team estimates. Both start-up costs and annual costs were estimated.

Step 4: Revenue estimate ranges for the four revenue categories were developed for each park archetype for Level 1 and Level 2 intensity.

Step 5: A model was then developed to enable calculation of an endowment for a portfolio of parks at different levels of services. The model calculates the endowment size necessary to provide sufficient income to cover both start-up and annual costs. The endowment calculation for each protected area, and therefore the total portfolio, is as follows: Total start-up costs required plus sufficient capital to enable a 5% annual payoff of capital to cover all annual costs. Start-up costs are based on the total start-up cost requirement estimates for the corresponding park archetype minus any start-up costs already invested. Annual costs are based on the total annual cost requirement estimated for the corresponding park archetype minus any existing or planned revenue.

Outcomes

Table 1.1 below details the summary output sheet of the CCIF model. In today's terms, the most relevant column to study is the net present value, nominal dollars column found on the right-hand side of the table. The $177.8 million figure represents the endowment size (in net present value terms) necessary to provide for the annual and startup funding needs of the 14 protected areas included in the analysis.

TABLE 1.1 – CCIF MPA ENDOWMENT MODEL SUMMARY

			Conservation Intensity		Undiscounted Future Value		Net Present Value	
					10 Year Endowment Required	10 Year Endowment Required	10 Year Endowment Required	10 Year Endowment Required
Protected Area	Country	Classification	Level 1	Level 2	Real (2003) US$000s	Nominal US$000s	Real (2003) US$000s	Nominal US$000s
Wakatobi	Indonesia	Group 1: Flagships	2003	2007	28,150	36,729	21,892	**27,139**
Cendrawasih	Indonesia	Group 1: Flagships	2003	2008	28,150	36,729	21,058	**26,199**
Take Bone Rate	Indonesia	Group 1: Flagships	2006	2010	28,150	36,729	17,378	**22,189**
Komodo	Indonesia	Group 1: Flagships		2003	1,304	1,702	6,468	**7,013**
Turtle Island	Philippines	Group 1: Flagships	2003	2008	28,150	36,729	21,058	**26,199**
Bunaken	Indonesia	Group 2: Central Parks		2003	8,143	10,624	7,507	**9,078**
Karimunjawa	Indonesia	Group 2: Central Parks	2005	2008	12,543	16,365	9,020	**11,330**
Thousand Islands	Indonesia	Group 2: Central Parks	2005	2009	12,543	16,365	8,762	**11,031**
El Nido	Philippines	Group 2: Central Parks	2004	2010	12,543	16,365	8,967	**11,203**
Ujung Kulon	Indonesia	Group 3: Hidden Jewels	2007	2011	7,548	9,848	4,440	**5,695**
Tubbataha	Philippines	Group 3: Hidden Jewels	2003	2007	4,667	6,090	3,527	**4,394**
Malampaya Sound	Philippines	Group 3: Hidden Jewels	2005	2010	7,548	9,848	5,015	**6,339**
Apo Reef	Philippines	Group 3: Hidden Jewels	2004	2009	7,548	9,848	5,417	**6,779**
Bali Barat	Indonesia	Group 4: Pocket Parks	2003	2007	3,255	4,247	2,571	**3,180**
					190,239	**248,219**	**143,080**	**177,769**

Conclusions

In relative terms, $177.8 million to fund a portfolio of protected areas spanning more than 3.8 million hectares is an extremely good deal (approximately $47 per hectare). However, it is clear that this need is currently vastly under funded. What is also clear is that local economic development and revenues from the protected areas themselves will not soon (if ever) provide adequate funding to create self-sufficiency.

It is CCIF's contention that this lack of funding is driven not by a lack of conservation funds, but rather by a lack of capacity to implement those funds across a portfolio of protected areas amidst the complexity that such an undertaking implies.

CCIF feels that what is needed to attract available funding for protected areas is a new type of organization: a professionally-managed, conservation-focused, protected area management company. This non-profit entity would have the scale, expertise, independence, accountability and transparency to coordinate protected area investments ranging from small loans to local resource users, to conservation concession agreements, to large-scale protected area endowments, and everything in between. While it would contract with all the existing capacity in the field – international NGOs, local groups, governmental agencies, etc. – it would provide the full range of "intermediary" services required for large-scale funding to occur. CCIF hopes to advance the discussion of such a management company throughout meetings at the Vth World Parks Congress.