Threshold of Sustainability for Tourism Within Protected Areas

Andy Drumm

https://www.facebook.com/DrummSustainableTourismConsulting
- Tourism market trends
- Implications for biodiversity conservation and protected areas
- Characterization of tourism – Recreational vs Nature-focused
- Dealing with tourism threats
- Financial Sustainability
- The Threshold of Sustainability for Tourism in Protected Areas
- Belize Case Study
Inbound tourism: World 2011

International tourist arrivals, 1995-2011* (million)

Source: World Tourism Organization (UNWTO)
Growth driven by emerging destinations

International tourist arrivals by country of destination

Source: World Tourism Organization
International Tourism: The largest transfer of resources from rich to poor

- Three Quarters of these journeys originate in high or upper-middle income countries.
- 40% end in a developing country destination.
- In 2007 international tourists spent US$295 billion in developing countries (three times the level of official development assistance).
So where are they all going?

- Galapagos, Ecuador has more than tripled visitor numbers to 170,000 in last 15 years

- Eduardo Avaroa Reserve in Bolivia rose from 8,000 in 1999 to 65,000 in 2007

- Torres del Paine, Chile - From several thousand a year in the 1990s to 117,000 in 2006

- In 2006, Colombia experienced a 35% increase in Park visitation Amacayacu NP: 65% ('05), 17% ('06); Tayrona NP: 75%
Infrastructure Design: Kapawi Eco-lodge, Ecuador
Turismo Indígena
con criterios de sostenibilidad
Ambiental y Cultural

una nueva forma de hacer turismo étnico en la
Calle de Santa Marta, donde te ofrecemos un
servicio para aquellos que aman la naturaleza
y la cultura indígena.

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Email: hurayron@hotmail.com
Huaorani EcoLodge, Amazonia Ecuatoriana
Ejemplos Exitosos

- Canaima NP, Venezuela
Tourism – Opportunity or Threat for Protected Areas?

Conservation Area Plans (CAPs) in Latin America and the Caribbean
<table>
<thead>
<tr>
<th>TOURISM-RELATED THREATS</th>
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<tbody>
<tr>
<td><strong>TOURIST BEHAVIOR</strong></td>
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<tr>
<td>ATTRACTIONS IMPORTANT</td>
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<td>for high quality visitor</td>
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<td>experience</td>
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<td>CONSERVATION OBJECTIVES</td>
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Country Case Studies

Peru
- Receives approx. $800 million annually from international tourism
- 71% of international visitors go to protected areas (PromPeru)
- SINAPE received $1.7 million from tourism fees in 2005
- For $1 of investment in AP $146 generated in tourist spending

Ecuador
Received approx. $400 million in 2006 from international tourism
- 60-80% of int’l visitors go to Pas
- SNAP recv’d approx. $900k from tourism fees in 2006 (new reg 2010)

Belize
- 20% of GDP is tourism generated. 60% plus of int’l visitors go to PAs
# The Economics of Protected Area Tourism

From Studies of the financial sustainability of protected area systems.

**Tourism’s Contribution to:**

<table>
<thead>
<tr>
<th></th>
<th>The National Economy</th>
<th>National Systems of Protected Areas</th>
<th>Investment in PA tourism management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecuador</td>
<td>$370 million</td>
<td>$900,000</td>
<td>$250,000</td>
</tr>
<tr>
<td>Peru</td>
<td>$800 million</td>
<td>$1,700,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>Bolivia</td>
<td>$150 million</td>
<td>$600,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Belize</td>
<td>$250 million</td>
<td>$8.6 million</td>
<td>$450,000</td>
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</tbody>
</table>
Origin of Threshold of Sustainability

- Recognition of developing country context (appropriate technology)...
- Biologists and foresters ...meet businessmen and economists
- Address existing critical threats
- Quality of visitor experience
- Revenue and investment...
The Threshold of Sustainability Process

- **Step 1:** Identify threatened natural capital, the most critical tourism-related threats, and key management issues: Identify threatened, tourism-related conservation objectives, the impact that tourism and other threats are having on them, and identify the extent to which protected area staff are able to prevent and mitigate these threats.

- **Step 2:** Identify efficient actions to address critical tourism-related threats: Identify which strategies will be most effective at addressing tourism-related threats.

- **Step 3:** Assess tourism finances in the protected area: At a minimum in the rapid response mode, identify the financial gap between existing and required funds and identify potential revenue sources and financial mechanisms. If resources and time permit, then begin to build the financial case for increasing funds available for protected area management by also estimating the economic impact of tourism on the destination, and identifying potential complementary opportunities, such as tourism concessions and co-management opportunities.

- **Step 4:** Assess the broader enabling environment: Assess the legal, regulatory, institutional, administrative and policy environment and assess the extent to which this environment enables effective management of tourism within protected areas. This should be done to different extents in both the rapid response and long-term planning situations.

- **Step 5:** Develop and implement a communications strategy: Although communication and participation is important at every point of the threshold of sustainability framework, accumulation of the breadth of information in Steps 1-4 requires development of a formal communications strategy to help win the support of key audiences and change policies.

- **Step 6:** Implement actions and monitor results: Establish basic infrastructure and capacities needed to 1) achieve minimum management effectiveness, 2) implement new funding mechanisms, and 3) monitor results, including the impact of threats, the status and trends of biodiversity health, community benefits, and the effectiveness of management interventions.
## Determining the real cost of tourism management

<table>
<thead>
<tr>
<th>Tourism-related feature/conservation objective</th>
<th>Key (high-ranked) tourism-related threat</th>
<th>High-ranked management issues</th>
<th>Prioritized actions (ranked 1 [high-cost, inefficient] to 5 [low-cost, efficient])</th>
</tr>
</thead>
</table>
| Sea turtles                                   | Visitors approach nests and/or turtles too closely, disrupting nesting | • Poorly-trained park guards  
• Insufficient patrols  
• Inadequate visitor education  
• No trained local guides  
• No interpretation program | • Train guards (5)  
• Increase patrols to beach areas during nesting (3)  
• Train local guides (4)  
• Place signs between car park and turtle nesting area (5)  
• Provide visitors with written guidelines and interpretation (5) |
|                                              | Inappropriate fixed lighting on nearby hotels outside protected area, disrupting nesting | • Inappropriate local zoning laws  
• Lack of education in the community  
• Inadequate dialogue with hotel owners | • Lobby Board of Supervisors to regulate lighting (1)  
• Ask hotel owners bordering the area to change the location or frequency of lighting (5) |
|                                              | Inappropriate portable lighting carried by tourists and guides disrupts nesting | • Inadequate distribution of visitor guidelines | • Provide visitors with written guidelines and interpretation (5) |
|                                              | Jet skis harass turtles | • Lack of zoning of public use  
• Poor enforcement of regulations  
• No dialogue with local jet ski rental business | • Install marker buoys to delimit no jet ski area (4)  
• Provide info at rental office (5)  
• Withdraw permits from persistent rental business offenders (5) |
| Non-tourism threat affecting tourism          | Communities poach turtle eggs | • Insufficient number of park guards  
• Inadequate education program for local community  
• Limited flow of tourist spending to local community | • Hire and train more park guards, especially from local community (3)  
• Implement monthly presentations in local community (4)  
• Create tourism business opportunities for local community (4) |
Sustainable Financing Strategy for the Belize National Protected Areas System
Belmopan,
October 21st 2011

SUSTAINABLE FINANCE FOR THE IMPLEMENTATION OF THE BELIZE NATIONAL PROTECTED AREAS SYSTEM PLAN, COST OF THE SYSTEM AND ECONOMIC VALUATION PROJECT
Belize PAs Financial System

- Interest
- Debt Swap
- Cruise Passenger Tax
- Airport Departure Tax

- Protected Areas
- NGO
- CBO
- Entrance Fees, Concessions, Grants/Donations

- Fisheries
- Forestry
- Archaeology

- GOVT
- Development Aid
The Key Numbers

- An estimated **US$8.9 million** was spent in total on the protected area system in 2010
- **Basic** level of funding is **US$18.5 million** per year
- **Optimal** level of funding is **US$28.3 million**
- The financial gap for a **Basic** scenario is **US$10.2 million** per year and **US$ 19.4 million** for an **Optimal** scenario.

Figure 4. Three levels of expenditures (current, basic, optimal)
Financial Gap by Program Area
Tourism Programme budgets
The Threshold of Sustainability for Tourism

Table A1. Tourism Program - Basic Scenario

<table>
<thead>
<tr>
<th>Sub-Program</th>
<th>Annual Operational Costs</th>
<th>Capital Costs (every 5 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information &amp; Interpretation</td>
<td>$395,181.82</td>
<td>$390,272.73</td>
</tr>
<tr>
<td>Visitor Impact Monitoring</td>
<td>$289,636.36</td>
<td>$564,545.45</td>
</tr>
<tr>
<td>Security</td>
<td>$263,863.64</td>
<td>$159,545.45</td>
</tr>
<tr>
<td>Basic Infrastructure</td>
<td>$110,454.55</td>
<td>$737,590.91</td>
</tr>
<tr>
<td>Staff</td>
<td>$1,173,272.73</td>
<td>$135,000.00</td>
</tr>
<tr>
<td>Total</td>
<td>$2,232,409.09</td>
<td>$1,986,954.55</td>
</tr>
</tbody>
</table>

Table A2. Tourism Program - Optimal Scenario

<table>
<thead>
<tr>
<th>Sub-Program</th>
<th>Annual Operational Costs</th>
<th>Capital Costs (every 5 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information &amp; Interpretation</td>
<td>$727,772.73</td>
<td>$1,892,454.55</td>
</tr>
<tr>
<td>Visitor Impact Monitoring</td>
<td>$434,454.55</td>
<td>$846,818.18</td>
</tr>
<tr>
<td>Security</td>
<td>$400,090.91</td>
<td>$240,545.45</td>
</tr>
<tr>
<td>Basic Infrastructure</td>
<td>$165,681.82</td>
<td>$1,106,386.36</td>
</tr>
<tr>
<td>Staff</td>
<td>$1,401,545.45</td>
<td>$270,000.00</td>
</tr>
<tr>
<td>Total</td>
<td>$3,129,545.44</td>
<td>$4,356,204.54</td>
</tr>
</tbody>
</table>
Visitor Responsiveness to Entrance Fees

From León et al., 2009
Ecosystem Services: Tourism

- Hotel Tax
- Tour operator license fee
- Guide licenses
Optimize Existing Revenue Sources

- Government commits to increasing allocations.
- Increase average entrance fees significantly
- Develop an action plan for a fee revision both increase existing fees and find new ones.
  - Increase Commissions on the Cruise Passenger Tax to 25%
  - Increase Conservation Fee to between US$7.50-US$10
- Establish the technical basis for determining the price of fishing licenses and forestry concessions.
- Install international cooperation unit at NPAS
Improve tourism entrance fee system

- Standardize and simplify entrance fees
- Simplify purchase transactions
  - Establish vending points
  - Accept credit card payments /
  - Web-based payment
  - Multi-site passes
  - Extended validity
- Outsource fee collection
- Review time preferences of market segments
Moderate Improvement / Basic Management
Virtuous Cycle of Tourism User Fees

Positive feedback loop between tourism impacts and conservation

User Fees
Proportional to Cost of Managing Impacts & Ability to Pay

Tourism Management Capacity

Sustainable Visitation

Health of Protected Area
Visitor Use Balanced with Impacts

Strong Demand
% of market retention

proposed increment in tariff in $US

From León et al., 2009
Gasto corriente (2005) y gasto corriente propuesto (umbral de sustentabilidad) por año en sumatoria de las siete áreas protegidas del estudio.

The Threshold of Sustainability
for Tourism within Protected Areas:

A Quick Guide
FOR PROTECTED AREA PRACTITIONERS
### Adding it up...

<table>
<thead>
<tr>
<th>Country</th>
<th>PA System Revenue</th>
<th>Tourism Mgmt. Budget</th>
<th>ToS (basic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecuador:</td>
<td>$1 million</td>
<td>$0.25m</td>
<td>$0.5m</td>
</tr>
<tr>
<td>Brazil:</td>
<td>$7 millones</td>
<td>$3.5 m</td>
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</tr>
<tr>
<td>Peru:</td>
<td>$800k</td>
<td>$0.2m</td>
<td>$1.5m</td>
</tr>
<tr>
<td>Bolivia:</td>
<td>$500k</td>
<td>$0.1m</td>
<td>$0.3m</td>
</tr>
<tr>
<td>Colombia</td>
<td>$400k</td>
<td></td>
<td>$1.5m</td>
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<tr>
<td>Chile</td>
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<tr>
<td>Argentina</td>
<td>$8 millones</td>
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<td>$3.0m</td>
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Tourism-related threats

Direct
- Destruction of habitat for hotel construction
- Pollution of water bodies by sewage

Indirect
CBD Programme of Work on Protected Areas (PoWPA)

PoWPA provides a framework for international action in 140 countries

PoWPA objectives to which tourism can contribute:

- Financial sustainability,
- Management capacity,
- Sharing benefits with local communities