Issues of measurement of environmental and social sustainability of tourism

Indicators of Sustainable Development for Tourism Destinations and Operations

Presentation by Mr. Eugenio Yunis
Head of Department
Benefits from good indicators

<table>
<thead>
<tr>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better decision-making, lower risks and costs, identify limits and opportunities</td>
</tr>
<tr>
<td>Identification of emerging risks - prevention</td>
</tr>
<tr>
<td>Identification of impacts - corrective action</td>
</tr>
<tr>
<td>Performance measurement of the implementation of development plans and management actions</td>
</tr>
<tr>
<td>Greater public accountability, better communication</td>
</tr>
<tr>
<td>Constant monitoring - continuous improvement</td>
</tr>
</tbody>
</table>
Types of sustainability indicators

- early warning indicators (species disappearance)
- indicators of stresses on the system (crime rates)
- measures of current state of tourism (occupancy, satisfaction)
- measures of tourism impacts (deforestation rates, change in property prices)
- measures of management efforts (cleanup cost, repairs)
- measures of management effect and performance (changed pollution levels, more returning tourists)
Expression of indicators

Quantitative measurements:
• Raw data
• Ratios
• Percentage

Qualitative/normative measurements:
• Category indices
• Normative indicators
• Nominal indicators
• Opinion-based indicators
Sustainability indicators – basic tool

• To identify and measure the entire range of impacts (environmental, social and economic) that tourism can have in a particular area or society.

• Accurate information is needed for responsible decision-making.

Sustainability indicators are information sets which are formally selected for a regular use to measure changes in key assets and issues of tourism destinations and operations.
UNWTO’s Indicators Initiative

- 1993-6 Initial task force on indicators
- 1994-5 Case studies in pilot destinations
- 1997 Publication of initial Guide
- 1998-2003 Regional workshops
  - Lake Balaton - Hungary (Central Europe)
  - Cozumel - Mexico (Spanish-speaking Caribbean)
  - Villa Gesell - Argentina (South America)
  - Beruwala - Sri Lanka (South Asia)
  - Kukljica - Croatia (Mediterranean)
  - As well, specific studies were conducted in Cyprus and Canada.

- Extensive review of international experiences
- Involvement of 62 experts from 20 countries
- Focus on local destinations, also covering applications at regional, national and business levels
- A recommended procedure for indicators development
- A categorized list of common issues and indicators
- Destination-specific applications
- The role of indicators in tourism policy and planning
- Ample range of case studies
Procedure for indicators development

A. Research and Organization
1. Definition/delineation of the destination
2. Use of participatory processes
3. Identification of tourism assets and risks; situation analysis
4. Long-term vision for a destination

B. Indicators Development
5. Selection of priority issues and policy questions
6. Identification of desired indicators
7. Inventory of data sources
8. Indicators selection

C. Implementation of indicators
9. Evaluation of feasibility/implementation procedures
10. Data collection and analysis
11. Accountability and communication
12. Monitoring and evaluation of results

Corrections in the process

Sustainable Development of Tourism
Evaluation of indicators’ feasibility:

• **Relevance** to the issue
• **Data availability** (capacity to collect and process)
• **Credibility** of the information
• **Clarity** and understandability to users
• **Comparability** over time and across jurisdictions or regions
A large menu of suggested indicators

Over 50 issue areas and a wide range of specific indicators responding to each of them:

- **Socio-cultural** (issues related to community wellbeing, cultural assets, community participation, tourist satisfaction)
- **Economic** (capture of benefits, sustaining the tourist product, seasonality, leakages)
- **Environmental** (protection of valuable natural assets, managing env. resources: water, energy, waste)
- **Tourism planning and management** (destination planning and control, design of products and services, controlling use intensity, transport, marketing, branding)
- **Responding to Global issues** (e.g climate change, epidemics, sex tourism)
12 Baseline issues
(and 25 selected indicators)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LOCAL SATISFACTION WITH TOURISM</td>
</tr>
<tr>
<td>2.</td>
<td>EFFECTS OF TOURISM ON COMMUNITIES</td>
</tr>
<tr>
<td>3.</td>
<td>SUSTAINING TOURIST SATISFACTION</td>
</tr>
<tr>
<td>4.</td>
<td>TOURISM SEASONALITY</td>
</tr>
<tr>
<td>5.</td>
<td>ECONOMIC BENEFITS OF TOURISM</td>
</tr>
<tr>
<td>6.</td>
<td>ENERGY MANAGEMENT</td>
</tr>
<tr>
<td>7.</td>
<td>WATER AVAILABILITY AND CONSERVATION</td>
</tr>
<tr>
<td>8.</td>
<td>DRINKING WATER QUALITY</td>
</tr>
<tr>
<td>9.</td>
<td>SEWAGE TREATMENT (WASTEWATER MANAGEMENT)</td>
</tr>
<tr>
<td>10.</td>
<td>SOLID WASTE MANAGEMENT (GARBAGE)</td>
</tr>
<tr>
<td>11.</td>
<td>DEVELOPMENT CONTROL</td>
</tr>
<tr>
<td>12.</td>
<td>CONTROLLING USE INTENSITY</td>
</tr>
</tbody>
</table>
Example of Issue:

2. Effects of Tourism on Communities

<table>
<thead>
<tr>
<th>Components of the Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community attitudes to tourism (acceptance)</td>
</tr>
<tr>
<td>Social benefits</td>
</tr>
<tr>
<td>Changes to resident lifestyles</td>
</tr>
<tr>
<td>Housing issues</td>
</tr>
<tr>
<td>Community demographics</td>
</tr>
</tbody>
</table>

Examples of indicators:

- Frequency of community meetings and attendance rates
- Ratio of tourists to locals (average and peak day)
- % of residents changing from traditional occupation to tourism over previous year(s); men and women;
- % of housing affordable for residents;
- Net migration into/out of community (sort by age of immigrants and out-migrants).

Sustainable Development of Tourism
### Example of Issue: 10. Solid Waste Management

#### Components of the Issue

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing waste collected in a destination</td>
<td></td>
</tr>
<tr>
<td>Reducing waste produced</td>
<td></td>
</tr>
<tr>
<td>Providing waste collection services</td>
<td></td>
</tr>
<tr>
<td>Hazardous Substances (reduction, handling)</td>
<td></td>
</tr>
<tr>
<td>Maintaining clean image for the destination</td>
<td></td>
</tr>
</tbody>
</table>

#### Examples of indicators

- Waste volume produced by the destination (tonnes) (by month)
- Volume of waste recycled ($m^3$) / Total volume of waste ($m^3$) (specify by different types)
- Quantity of waste strewn in public areas (garbage counts)
Applications to many types of destinations

1. Coastal Zones,
2. Beach Destinations and Sites
3. Small Islands
4. Destinations in Desert and Arid Areas
5. Mountain Destinations
6. Natural and Sensitive Ecological Sites
7. Ecotourism Destinations
8. Parks and Protected Areas
9. Communities Within or Adjacent to Protected Areas
10. Trails and Routes
11. Built Heritage sites
12. Small and Traditional Communities
13. Urban Tourism
14. Conventions and Convention Centres
15. Communities Seeking Tourism Development
16. Theme Parks
17. Water Parks
18. Cruise Ships and Their Destinations
Example of destination:
3. Small Islands

Key issues

- Intensity of tourism
- Seasonality
- Access to the destination
- Water supply
- Sewage treatment and solid waste (garbage) management
- Access to natural resources (fish, agricultural land, wood)
- Retention of benefits on the island (Leakages)
- Out-migration to places with greater economic opportunity
- Preservation of unique cultural traditions.
- Climate change
- Energy
UNWTO training programme on sustainability indicators

- Training is done as a hands-on case study and workshop at a local destination
- Experts, participants from the host destination and other destinations, key local stakeholders all participate
- Workshop is led through a real test case, identification and feasibility assessment of indicators through stakeholder dialogue
- Triggering local planning process, encouraging the replication of the exercise at other destinations
Thank you

www.world-tourism.org/sustainable