Assessing the benefits of protected areas with help of visitor information

Liisa Kajala
Metsähallitus, Natural Heritage Services

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Benefits of Quality: How Ecosystems Work for Us
Bad Urach, 24.9.2011
Metsähallitus, Natural Heritage Services manages state owned protected areas

- 37 national parks
- 19 strict nature reserves
- 7 national hiking areas
- 12 wilderness areas
- Almost 500 other protected areas
- Public water areas

Altogether over 7 mill. ha, 18% of Finland’s surface area
National Parks

- A total of 37, on an area of 9 790 km$^2$
- Almost 2 million visits in 2010
Natural Heritage Services

• Core processes
  - Management planning
  - Nature conservation
  - Recreation
  - Game and fisheries
Land use planning in a participatory manner
Conservation of habitats and species
Protection of cultural heritage, landscapes and traditions
Providing trails and facilities for outdoor recreation
# National supply statistics

<table>
<thead>
<tr>
<th>Recreational Infrastructure</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of visitor centres and customer service points</td>
<td>29</td>
</tr>
<tr>
<td>Number of interpretation structures</td>
<td>3,424</td>
</tr>
<tr>
<td>Number of mountain and rental cabins</td>
<td>389</td>
</tr>
<tr>
<td>Number of fire places etc.</td>
<td>3,018</td>
</tr>
<tr>
<td>Number of harbours and other structures for boating</td>
<td>470</td>
</tr>
<tr>
<td>Number of dry toilets etc.</td>
<td>2,285</td>
</tr>
<tr>
<td>Number of fire wood shelters</td>
<td>1,713</td>
</tr>
<tr>
<td>Recreational trails and nature trails (km)</td>
<td>6,413</td>
</tr>
<tr>
<td>Ski trails (km)</td>
<td>2,182</td>
</tr>
<tr>
<td>Managed routes for boats and canoes (km)</td>
<td>1,370</td>
</tr>
<tr>
<td>Snowmobile trails (km)</td>
<td>11,274</td>
</tr>
</tbody>
</table>
Visitor centers, guidande, interpretation,
Outdoors.fi, Excursionmap.fi
Number of visits to national parks and visitor centers

- **National Parks**
- **Visitor Centres and Customer Service Points**

Liisa Kajala, Natural Heritage Services 2011
The most popular national parks are part of the appeal of the tourist destinations

<table>
<thead>
<tr>
<th>National Park</th>
<th>Number of Visits 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pallas-Ylläsjärvi</td>
<td>436 000</td>
</tr>
<tr>
<td>Urho Kekkonen National Park</td>
<td>287 500</td>
</tr>
<tr>
<td>Nuuksio</td>
<td>178 000</td>
</tr>
<tr>
<td>Oulanka</td>
<td>169 000</td>
</tr>
<tr>
<td>Koli</td>
<td>138 500</td>
</tr>
<tr>
<td>Pyhä-Luosto</td>
<td>119 000</td>
</tr>
</tbody>
</table>
The Total Value of a National Park

**Total value**

**Use values**
- Direct use values (recreation, scenery)
- Option value (future use)

**Non-use values**
- Existence value (original nature, species, habitats)
- Bequest value

**Indirect use** (water, climate, photos, films)

The visitors’ spending increases income and employment in the area. Income effects reflect the part of the direct use values, not the total value.
Why to Estimate Economic Impacts of Park Visitation?

1. To justify budget funding
   - Benefits are not obvious
   - Decision-makers prefer numbers
   - State provides facilities, local entrepreneurs benefit

2. To increase general acceptability of national parks
   - Nature protection can be combined with business activities

3. To measure economic effectiveness
The First Step...

Benchmarking

• U.S. MGM2 (Money Generation Model 2): a model developed by Michigan State University for USDI National Park Service to evaluate the local economic impacts of National Park tourism
  - Excel application with three inputs:
    • number of visits
    • average visitor spending
    • multipliers from local input-output tables
What Did We Do?

An application producing
- direct and total income effects (€)
- employment effects (person years)
- annual follow-up of the results

Estimate for each NP
→ for those parks where no visitor data exists, data from similar kind of park is used

Enabling estimation of total, state-level effects annually

Easy-to use, practical tool
Basic Requirement: Harmonised Visitor Monitoring Methods in National Parks
Good Use of ASTA Visitor Information: Number of Visits and Visitor Spending

Annual number of visits

Visitor spending in the park and its surroundings
• Any spending related to the trip: yes / no?
• Costs per visitor / party?
• In 7 categories (accommodation, restaurants etc.)

Other visitor information
• The importance of the NP as a destination
• Municipality (Country) of residence
• Length of stay
• Size of the party
Methodology

Metla Working paper: Local economic impacts of national park visitors’ spending: The development process of an estimation method

[Links to the Metla Working paper]


www.metsa.fi/suojelalueetjapaikallistalous
Regional economic impacts of national park visitation

Money spent on management and services of national parks and other protected areas comes back many-fold through local entrepreneurship and jobs.
### Summary of the results

- The economic impacts of visitors’ spending in 2010

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Person yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Parks</td>
<td>108.9 milj. €</td>
<td>1,403</td>
</tr>
<tr>
<td>National hiking areas</td>
<td>15.5 milj. €</td>
<td>201</td>
</tr>
</tbody>
</table>
Big differences between the parks

- The impacts are the biggest in Northern Finland, in those parks located nearby a tourist center
  - Pallas-Yllästunturi NP 31 milj. €, 402 person years
  - Urho Kekkosen NP 22 milj. €, 289 person years
  - Oulanka 15 milj. €, 194 person years
- In Southern Finland impacts per area smaller but many more areas
- Parks in archipelago regions significant, right after Koli NP which is a “tourist center park”
  - Koli kp n. 5,8 milj. €, 76 person years
  - Saaristomeri 4,0 milj. €, 48 person years
  - Linnansaari 3,1 milj. €, 38 person years
  - Tammisaari 3,0 milj. €, 36 person years
Reasons for differences

Differences in

• the amount of visitation (attractivity, accessibility etc.)
• visitor profiles
• services in the surrounding region
Interpreting the results

• The impacts are the local economic impacts of visitor spending, NOT the total value of the area
• For each park also impacts calculated from those visitors’ spending to whom NP was “the only or the most important destination”

→ Minimum impacts, year 2010:

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<th>person yrs</th>
</tr>
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<tr>
<td>National Parks</td>
<td>54.9</td>
<td>700</td>
</tr>
<tr>
<td>State hiking areas</td>
<td>8.5</td>
<td>110</td>
</tr>
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The Total Value of a National Park

Total value

Use values

Direct use values (recreation, scenery)

Option value (future use)

Non-use values

Existence value (original nature, species, habitats)

Bequest value

Indirect use (water, climate, photos, films)

The visitors' spending increases income and employment in the area. Income effects reflect the part of the direct use values, not the total value.
Nature promotes health

There is research evidence that contact with nature
- prevents diseases
- helps to recover from stress and diseases
- promotes positive attitudes towards life
- increases productivity

→ A therapy based on nature can cure patients even when other cures are not effective
→ Parks and other natural environments are essential in the prevention of diseases

For most of the people health is the single most important issue in their lives
The goal of the programme in NHS

Public health improves as people get out into natural settings, enjoy positive and genuine experiences, and improve their physical health through a wide range of outdoor activities.

→ outdoor activities become a more important aspect of Finnish lifestyles, and Finns live active outdoor life
→ public health improves
→ longer life expectancy
→ improved work capacity
→ health inequality declines
→ attitudes towards national parks become more favourable and funding becomes available from more diverse sources
Objectives of the programme in NHS – Research and monitoring

More research data becomes available on the health benefits of protected areas
- A better understanding of the health benefits of protected areas
- Research findings form a reliable basis for identifying and promoting the health benefits of natural settings

The health benefits of the use of protected areas are monitored and measured, with findings used to enhance services
- The health benefits of the recreational use of protected areas are effectively measured
- A better understanding of these benefits guides decision-making and funding becomes available from more diverse sources
Thank you!

liisa.kajala@metsa.fi