Assessment of Local Economic Impacts of Recreation: The Case of Pallas-Ounastunturi National Park

3rd International Conference on Monitoring and Management of Visitor Flows in Recreational and Protected Areas

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Introduction to the topic

- Migration from the countryside increases as the traditional livelihoods diminish
- How to keep countryside vital?
- Can nature tourism improve the situation?
- Nature tourists do bring money to the area but how much and how does this affect the local economy and especially the employment?
- These questions are seldom studied in Finland as the generally accepted method lacks
- Information about regional economic impacts of recreation is also needed for justifying the maintenance and investments in recreation facilities
Background of this study

• A need to create a system for assessing the regional economic impacts of nature tourism

• Nature tourism creates direct and indirect impacts

• System should
  □ cover both the direct and indirect impacts
  □ be based on the visitor survey data collected regularly by Metsähallitus in all recreation areas
  □ produce comparable and reliable information with moderate costs
  □ be usable in all types of recreation areas
A new method to Finland?

• A method chosen for testing: U.S. Visitor survey / input-output model
  1. Annual number of visitors in the area
  2. Average spending per visitor
  3. Regional coefficients from input-output table

• Pallas-Ounastunturi National Park Case Study: attention to the spending
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Pallas-Ounastunturi National Park*

- Situated in northern Finland, in municipalities of Muonio, Kittilä and Enontekiö
- Established in 1938
- Among the Finland’s three largest NP:s; 510 km²
- Number of visitors annually ~ 100 000

* from 1.2.2005 Pallas-Ylläs National Park

Source: Metsähallitus
Case study – what was done?

• Visitor spending was examined with two methods
  □ Standard visitor survey
  □ Expenditure diary

• Assumption: expenditure diary provides more accurate results

• Regional input-output table was constructed from the province-level table by applying a location quotient method and aggregating industries

• Impacts on income, employment, wage income and communal taxes were counted applying the results from the expenditure diary
Visitor spending – visitor survey

- Standard on-site visitor survey conducted in 2003 by Metsähallitus
  - How much money did you spend during your visit to various purposes: Meals / accommodation / travel costs / programme services / other expenses?
- Troubles to remember or estimate expenditures
  → underestimation?
- Sample altogether 1052; 473 in winter season and 579 in summer season

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Visitor spending – expenditure diary I

- Mail-back expenditure diary in 2004: visitors recorded their spending during their stay in the area and answered few background questions

<table>
<thead>
<tr>
<th>Date</th>
<th>Object of the expense</th>
<th>Sum (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.6.2004</td>
<td>Café</td>
<td>4</td>
</tr>
<tr>
<td>10.6.2004</td>
<td>Nature trip with a guide</td>
<td>20</td>
</tr>
<tr>
<td>10.6.2004</td>
<td>Groceries</td>
<td>10</td>
</tr>
<tr>
<td>11.6.2004</td>
<td>Ice-cream</td>
<td>1,5</td>
</tr>
<tr>
<td>11.6.2004</td>
<td>Souvenir</td>
<td>6</td>
</tr>
<tr>
<td>12.6.2004</td>
<td>Petrol</td>
<td>12</td>
</tr>
<tr>
<td>12.6.2004</td>
<td>Wilderness hut, reservation fee</td>
<td>5</td>
</tr>
</tbody>
</table>
Visitor spending – expenditure diary II

• Sample 681 in the winter and 461 in the summer

• Response rate 65 % in the winter and 62 % in the summer (without follow-up)

• Research area: national park and its surroundings; ~ 20 km radius

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Results – Visitor spending I

- Respondents represent the same population: comparison possible
- Mean visitor spending in the area per trip (excl. package travellers):

<table>
<thead>
<tr>
<th></th>
<th>Summer</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure diary</td>
<td>156 €</td>
<td>306 €</td>
</tr>
<tr>
<td>Visitor survey</td>
<td>128 €</td>
<td>257 €</td>
</tr>
<tr>
<td>P-value</td>
<td>0,084</td>
<td>0,000</td>
</tr>
</tbody>
</table>

- Length of stay 7 days in the winter and 5 days in the summer

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Results - visitor spending II

- According to the diary study the visitors spent altogether more than 24 million euros in the area

- Most money was spent on lodging, retail shops and restaurants
Experiences from the expenditure diary

• Overall experiences from the expenditure diary method positive: response rate and quality of responses better than expected

• The results confirm the assumption: visitor survey underestimates the spending in the area

• Note: If the travel costs are included the methods do not differ
Impacts on the local economy I

• Visitor spending does not totally stay in the region
  – VAT
  – Leakages as products and services are bought outside the region
• Direct net income approx. 9.5 million euros
• Indirect income approx. 2.5 million euros
  → one euro of travel income was multiplied to 1.27 euros in the local economy
• Most direct effects occurred in accommodation and restaurant businesses
• Most indirect effects occurred in other service businesses
Impacts on the local economy II

- Direct employment effects 145 full-time jobs
- Indirect employment effects 18 full-time jobs
- Wages paid (dir. + ind.) 3,1 million euros
- Communal taxes (dir + ind.) 0,6 million euros
- NOTE: above mentioned applies only if all work is done as paid work and all employees live in the research area
Conclusions

• Results and multipliers well in line with previous studies
  → Tested method suitable if only the inaccuracy resulting from the technical conversion of the input-output table is accepted

• However, many questions remain
  – Defining the research area?
  – Suitability of the method in less popular or different types of areas?
  – Classifying the areas and creating the general multipliers for each class?
  → More research needed before the regional economic impact system can be developed

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THANK YOU