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

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Introduction

In many rural areas the number of inhabitants is rapidly decreasing as people move into cities. This leads to fewer jobs and services in the countryside, which further precipitates migration from the villages. In Finland nature-based tourism has been suggested as a key to break this vicious circle. However, it is still unclear how much income and employment nature tourism actually generates in the host area and how these effects should be measured.

This study is part of a process which aims at creating a regional economic impact assessment system for Metsähallitus (Finnish Forest and Park Service) which needs economic impact information to justify investments and maintenance of nature protection areas. The assessment system will be based on visitor survey data collected regularly by Metsähallitus in all recreation areas under its administration. In this case study a U.S. Visitor survey / input–output-model (Stynes et al. 2000) is modified and tested in Pallas-Ounastunturi National Park in northern Finland. The model includes three components: annual number of visitors, their average spending in the area and multipliers derived from the local input–output table.

Methods

To test the reliability of the spending estimates received from regular visitor surveys, an expenditure survey was conducted applying a diary method in the national park and its sur-roundings in 2004. The survey revealed the average spending and segmentation of the spending in eight expenditure categories. The annual number of non-local visitors (95,200) in Pallas-Ounastunturi was multiplied with the average spending in each category to achieve total spending.

The local input–output table was constructed from the province-level table by aggregating industries and using a number of companies in each industry aggregate as a location quotient (e.g. McCann 2001 170). Before entering the total spending into the input–output model, the leakages and value-added tax were subtracted. The leakages from the local economy occur because enterprises buy materials and services outside the region. The remaining sum, the change in final demand, was then entered into the input-output model and as a result the direct and indirect impacts of national park visitors' spending on the local income became known. The number of jobs, salaries and communal taxes were counted, utilising the information from Statistics Finland.

Results

As table 1 shows, the results indicated that the visitor survey spending estimates are slight underestimations, compared to the estimates from the diary method. The difference between the methods was statistically significant in winter but not quite in summer. The average length of visit was seven days in winter and five days in summer. Tourists spent the most money on lodgings, restaurants and retail shops.

Impacts on the local income, jobs, salaries and taxes are shown in table 2. The local input-output analysis indicated that due to a multiplication effect, one euro of travel income produces on average 1,27 euro for the local economy.

Table 1: Mean visitor spending in the research area per trip.

	Summer	Winter
Expenditure diary	156 €	306 €
Visitor survey	128 €	257 €
p-value	0,084	0,000

Table 2: Local direct and indirect economic impacts.

	Winter Direct	Summer Direct	Winter + Summer Indirect	Total
Net income, 1000€	5 450	4 118	2 559	12 127
Number of jobs	81	64	18	163
Salaries, 1000 €	1 556	1 184	367	3 107
Communal taxes, 1000€	297	225	70	591

This case study showed that recreation tourism may notably affect the local economy of the area. As the results, as well as the multipliers derived from the local input-output model, were in line with previous studies, it can be concluded that a U.S. model is applicable also in Finland. However, in order to establish the economic impact assessment system, the study should be repeated in different types of recreation areas. Considering the accuracy and effort required, it should also be contemplated whether counting the indirect effects is worthwhile in less popular areas where the indirect effects tend to be much smaller.

References

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