

Standardisation of Visitor Surveys – Experiences from Finland

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Abstract: A visitor survey standardisation project was conducted in 1998-2000 in Finland. The visitor survey standardisation project was part of a large national outdoor recreation demand and supply inventory (LVVI). There are two reasons for the standardisation of visitor surveys. First, it is possible to collect comparable information from different kind of areas. Moreover, the information gathered can be combined on a national level. Secondly, standardised measurements assure long-term monitoring of behavioural changes in each studied area.

The visitor survey standardisation project developed a standardised questionnaire for the most important information gathered with the help of visitor surveys, that is visitor profiles, activities, distribution of use by area, distribution of use by time, duration of the visit, expenditure of visitors and information on visitor satisfaction and motivation. It is recommended that the data collection be carried out by means of self-conducted questionnaires. The project produced a visitor survey manual and a Microsoft Excel application for computing descriptive results in order to encourage the personnel of recreation areas to conduct visitor surveys independently.

The implementation of standardised visitor surveys is mainly carried out by Metsähallitus (Forest and Park Service) which manages the majority of the state-owned protected areas and national hiking areas in Finland. At the beginning of 2002, there were 33 national parks, 7 state-owned hiking areas and some 400 other protected areas. About two million recreational visits take place annually in state-owned protected areas and national hiking areas. The number of recreational visits seems to be on the increase.

All together 22 different visitor surveys have been conducted in state-owned areas in the last few years. The results of some of the surveys have almost immediately been used in management and planning of the area in question. In general, there is increasing understanding and interest in the use of visitor information as a tool in decision making: services can be improved to meet visitor expectations better and scarce resources can be allocated more effectively. Along with visitor surveys, systematical visitor counts have recently been started using electronic trail and traffic counters, guest books or manual counters in several protected and recreational areas. At the moment, the next step will be to develop a national database of the collected information, and also to develop good practice in order to benefit from the information on a national level.

This paper discusses, firstly, the structure and type of information that is needed from a visitor survey, secondly, how to conduct a visitor survey as a routine method in planning processes, and the framework within which visitor information can be utilised in planning and management. Thirdly, the Finnish experience of the benefits to be gained by using a standardised model for conducting visitor surveys is discussed.

THE NEED FOR VISITOR SURVEYS

The management of state-owned protected and recreational areas in Finland

Protected and recreational areas include national parks, state-owned hiking areas and wilderness areas and other nature conservation areas to which access is permitted, as well as other areas reserved for recreation. In Finland, protected and recreational areas are mainly managed by Metsähallitus (Forest and Park Service). Metsähallitus is a state

enterprise, which, in addition to business activities, also has social responsibilities. The Natural Heritage Services of Metsähallitus manages most of the state-owned areas reserved for nature conservation and recreation and controls their use. Issues relating to nature conservation and recreational services provided for citizens are social responsibilities and they are mainly financed by the state. At the beginning of 2002, there were 33 national parks, 7 state-owned hiking areas and some 400 other protected areas in Finland. In addition,

several new national parks and hiking areas are being planned. One national park and some protected areas are administered by the Finnish Forest Research Institute (Metla). There are more than two million recreational visits annually to state-owned protected and recreational areas.

Need for visitor information in state-owned areas

The number of recreational visits to state-owned protected and recreational areas is continually growing, thus presenting increasing challenges in the planning of their management and use, although this also creates new opportunities. The growing numbers of visitors leads to increasing problems in relation to the ecological and social tolerance of the protected and hiking areas. Heavy visitor traffic causes deterioration and other disturbances in the terrain from the perspective of nature conservation. Visitors may experience congestion as disturbing to their own recreation.

At the same time, the amount of budget funds allocated to recreation services has not increased to meet the growing service needs of the increasing number of visitors. It has become more important than ever to know how many visitors use the area and also to know the visitor profile and their opinions, so as to manage and prepare for changing situations in advance.

Metsähallitus has started systematic visitor counts in several areas, especially in national parks and hiking areas. A variety of methods can be used. Metsähallitus uses electronic trail and traffic counters and mechanical counters. In addition to these, trail logs, in which the visitor can write comments are also useful tools for estimating the number of visits (see Rauhala et al. in this proceedings and Horne et al. 1998).

Besides the number of visitors, other information on visitors is also necessary. This is gathered by means of visitor surveys. Visitor counts and visitor surveys are complementary to each other and they should be carried out simultaneously.

Standardisation of visitor surveys

There were several reasons for the standardisation of visitor surveys in Finland. Visitor surveys had been conducted earlier in municipal recreational areas and state-owned hiking areas and national parks (e.g. Sievänen 1992a and b, 1993, Ovaskainen et al. 1999). In several contexts, it was found to be necessary to compare visitor information gathered from different areas or from the same area at different times.

There was a need to collect information on the demand for outdoor recreation throughout the country and to create a national information system on recreational use. This was the motivation behind compiling of a national outdoor recreation demand

and supply inventory (LVVI) (Sievänen 1998). The demand for recreational use was studied with the help of an extensive population survey, the results of which reveal among other things how often and where Finns participate in outdoor activities. Every fourth Finn visits state-owned recreational areas yearly, and 10% of all outdoor recreation takes place in these areas.

An information system was developed to inventory the supply of outdoor recreation. It gathers information on recreational areas, hiking trails and recreational services. Unfortunately, information on the use of the area, i.e. number and type of visitors to the area, is not often included in the gathered information (Sievänen 2001). One of the objectives of the LVVI study was to find ways of developing methods for visitor surveys that would enable us to obtain comparable information on the use of the areas.

One of the aims of the visitor survey standardisation project was to evolve a method for gathering data, tested indicators for visitor information and also calculation and reporting methods. Another objective was to produce a manual for conducting visitor surveys and utilising visitor information in planning the management and use of the areas. The visitor survey standardisation project was conducted as a cooperation project by Metla, Metsähallitus and the University of Helsinki in 1998–2000.

STANDARDISATION OF SURVEYS AND MEASUREMENTS

The aim of the standardisation of visitor surveys is to produce commensurable and comparable information on the same factors. It is not necessary to carry out the measuring in exactly the same way in each place, but the measurement method, the variables and the indicators must be compatible, so that the information can be rendered commensurable.

The visitor survey standardisation project developed standard questionnaires and also guidelines for sampling, the calculation of results and reporting.

Standard form

Only the most relevant issues that are usually of interest in visitor surveys were included in the questionnaire. Special attention was given to the formulation of the questions and to the structure of the questionnaire. The standard questions form the basis of the questionnaire in all visitor surveys, but there is also room for questions specific to the areas.

The questionnaire was tested in the hiking areas of Syöte and Evo (Erkkonen 2000) and also

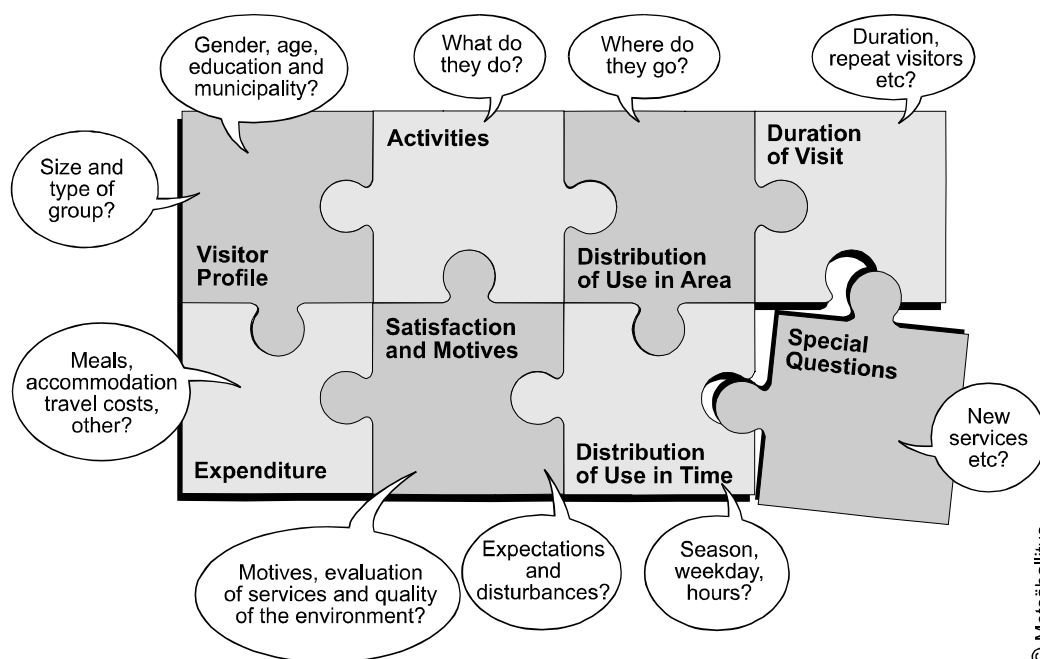


Figure 1. The most important factors inventoried in the visitor survey.

in the Pallas-Ounastunturi national park in 1998 (Erkkonen 2001). The standard form has been further developed as experience has accumulated from the visitor surveys. It has evolved into a basic form that is effective and can easily be applied in different areas (Erkkonen & Sievänen 2001).

Recommendations for data collection

Visitor surveys are carried out by means of questionnaires and interviews among the visitors to the area. Metsähallitus usually uses guided questionnaires. In most cases, it is recommended that some 300–500 questionnaires be collected during the survey period (summer, winter). Sampling arrangements and the size of the sample vary considerably depending on the nature of the area and the resources available. The randomness of the sample is ensured by distributing the collection of the questionnaires over the entire data collection period. Questionnaires are also collected at different entrance points to the area, so that at least the most important peak areas of visitor flows are covered. It is recommended that visitor surveys should be repeated about every 5 years, depending on the area.

WHAT INFORMATION IS COLLECTED?

Visitor surveys are used to gather information about visitor profiles, activities, use of the area, visitor satisfaction, duration of visits and expenditure during visits.

Visitor profile information consists of normal socio-economic data. In addition, visitors are asked whether they have visited the area before and if so, when they visited the area for the first time. The questionnaire also asks the ages of the oldest and youngest members of the group and whether any visitors are handicapped.

Outdoor activities and other forms of use are inventoried, mainly for the purpose of correct dimensioning of services and accommodation different visitor groups in the same area. Visitor satisfaction is measured by means of an indicator that consists of almost 20 different factors. Visitors are also asked to assess factors that disturb their recreation experiences. The questions relating to specific areas may concern such things as traffic arrangements and the need to increase or decrease the amount of services (Figure 1).

OUTCOME OF THE VISITOR SURVEY STANDARDISATION PROJECT

The actual outcome of the project is the visitor survey manual (Erkkonen & Sievänen 2001). The manual contains comprehensive instructions for carrying out a visitor survey, reporting its results and utilising visitor information (Figure 2). The purpose of the manual is to facilitate the conducting of visitor surveys, so that the basic tools, such as the questionnaire and the report model, are ready for use after minor modifications. The manual also gives instructions for planning sampling and the arrangements for data collection.

A MS Excel (Excel 97) application was developed during the project for saving the questionnaires and processing the data. It produces various tables and graphs (direct distributions and averages), which can then easily be transferred to the report. The application produces the results in the form of the report model presented in the visitor survey manual. This makes it considerably easier to compare the results for different areas or within the same area. The application is used by Metsähallitus.

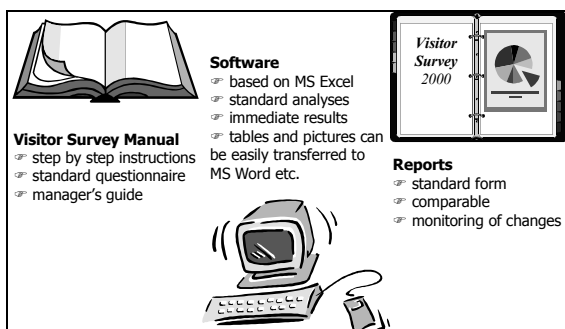


Figure 2. Standardisation of visitor surveys in Finland.

NUMBER OF VISITOR SURVEYS ON THE INCREASE

More than 20 visitor surveys have been conducted in state-owned protected and hiking areas in 1998–2001 (Figure 3). The surveys have been carried out using a standardised method, and their results are for the most part comparable (e.g. Erkkonen 2000). In the future Metsähallitus plans to carry out 5–10 visitor surveys annually.

With the help of the manual, the personnel of protected and recreational areas can conduct visitor surveys in the course of planning their activities, and they do not have to start from scratch or hire an external researcher for the job. Metsähallitus has trained the personnel of the protected and recreational areas in the conducting of visitor surveys. Most of the visitor surveys have been organised by Metsähallitus' own personnel, however with the help of students and other temporary employees. Metsähallitus has employed one person to train, guide and co-ordinate visitor surveys.

INTERPRETING AND UTILISING VISITOR INFORMATION

A visitor survey primarily produces information for resolving practical problems relating to planning and management, and to facilitate decision-making. Visitor surveys provide a wealth of information that is easy to interpret and apply. They can be used to decide the locations and scope of the services provided and also in the timing and maintaining of these services.

Information on visitors and their experiences is needed in order to develop the services. Information about the wishes and expectations of the visitors are especially useful when changes are made that affect the services. Most changes are improvements or additions to the present services, but sometimes the intention is to cut out unnecessary services. It is also recommended that visitors' opinions be taken into account on issues



Figure 3. Visitor surveys carried out using the method developed by the visitor survey standardisation project in 1998–2000.

relating to the management of the environment. In addition, visitor information is used in allocating human and other resources and in marketing the recreation areas and services (f.ex. Dales 1993).

Preparation of management plans

When compiling a management plan, a visitor survey is one of the basic studies carried out at the outset of the process. The visitor survey and the visitor count both produce important basic information which is used to describe the present status, to analyse problems, to look for solutions and finally to set targets. However, a visitor survey does not produce solutions for problems, but at best supports planning and decision-making by suggesting alternative solutions.

Information provided by surveys helps to identify and analyse problems as well as to understand the links between entities and their individual elements. The advantage of systematic information is that it is comprehensive and generally applicable, and thus it gives a better picture of facts and phenomena than sporadic observations and everyday experience. Metsähallitus has already utilised visitor information in the compilation of several management plans.

Controlled visitor guidance

Information about outdoor activities can be used if there is a need to control visitor activities in the area in some way. This may be necessary due to conflicts between different visitor groups, visitor traffic peaks or use that exceeds the ecological carrying capacity of the natural environment. By controlling the use of the area it is possible to guide visitors towards activities that are most suitable for the area in terms of ecological and social sustainability.

It is useful to know the distribution of the sites visited, for example, when planning services, trails and routes, rest points, firewood supply and waste disposal. Systematic control of visitor flows can also help to avoid deterioration of the terrain and to level out peaks.

Allocation of resources reserved for the maintenance and management of the area

With a view to the management and planning of the area, it is useful to know why visitors come to the area and what their most important motives are. The activities provided by the area can then be developed in the direction that visitors consider important. The aim is to offer visitors the opportunity to have the kind of experience that they expect of their visit.

On the basis of visitor satisfaction information, resources can be allocated to develop services that visitors are dissatisfied with or that they have found to cause problems. However, the manager of the area must decide the threshold limit beyond which measures are taken. It is not feasible to fulfil all wishes.

Information about how well visitor experiences have met expectations and to what extent visitors report on disturbances during their visit also tell something about visitor satisfaction. Changes in visitor satisfaction can be studied by repeating visitor surveys.

Information on the vehicles used to reach the area and the time of arrival at the area are used for planning the working hours of the visitor centre and service points personnel and for recruiting temporary staff as well as for planning car parks and directing traffic, for example.

Information on the expenditure of visitors is utilised in the planning of paid services (accommodation and restaurant services) and in developing new services (new activities and recreation services). In addition, information on the number of visitors and their distribution in the area can be used as grounds for new investment plans presented to project funding agencies and for more efficient allocation of human and other resources between the different sites.

Visitor centres and service points

A visitor survey carried out in a protected or hiking area can also be utilised by a visitor centre or service point in the area or in its vicinity. It can provide vital basic information for deciding on opening hours, exhibition themes and the needs for developing new services. In addition visitor information can be utilised when planning brochures, identifying and selecting target groups and deciding on the focal points of nature interpretation.

Marketing and communications

Information relating to visitors' backgrounds and their place of residence is exploited in the marketing of the services and recreational activities offered by the area. It is also advantageous for nature interpretation to know the visitors of the area as well as possible. The visitors' place of residence indicates whether the area is of local, regional, national or international significance.

Assessing the impact of measures taken and monitoring changes

Conducting visitor surveys systematically and on a routine basis at regular intervals enables us to monitor changes in the recreational use of the area in question. Changes can concern the visitor profile or their opinions on the area or the quality of services. The monitoring of changes makes it easier to assess what impacts the measures taken have had on visitor satisfaction (e.g. increase or reduction of services) and whether changes in management policy have influenced the visitor profile.

Comparison between areas

If similar questions and indicators have been used for monitoring the use of areas, it is possible to compare different areas with each other, even though the areas are very different. In addition to qualitative descriptive visitor information, comparable quantitative information on the number of visits (visitor counts) is also necessary. Comparable information on recreational areas maintained by the state or local governments is needed for monitoring the use and cost development of the areas.

National database of visitors

Metsähallitus is at present making preparations that will lead to the collection of visitor information from state-owned protected and recreational areas in one information system. The work is challenging and is still in its early stages. A consistent database could be utilised in the monitoring and reporting of annual operations, in research and in quality classification of the areas.

Recreation demand at the national level

Comparable quantitative and qualitative information about recreational use is also needed by public agencies providing funding for recreational services, such as ministries and municipal decision-makers, in order to direct the allocation of resources according to the recreational needs of the population. Information on the amount of use and the expenditure of visitors can furthermore be used as a basis for calculations and conclusions concerning the impacts of the national park or hiking area on the economy of the region.

Visitor information from state-owned and municipal areas is collected in the National Sport

Databank in Finland, which is maintained by the University of Jyväskylä. Information about the demand for recreation gathered from the areas is compared with information obtained from population surveys. The on-site information about recreational use provides a sound basis for analysing whether the recreation demand and supply meet.

CONCLUSIONS

In Finland most extensive protected and recreational areas are owned by the state and administered by Metsähallitus. The situation is good in terms of visitor surveys, as good and tested methods are put into practice very quickly around the country. In the state-owned areas visitor surveys are currently well under way, but we are only starting out on the long road involved in collecting monitoring data. One of the challenging tasks facing us is the closer integration of visitor surveys and visitor counts into the routine planning of management and use of these areas. We therefore need to invest more in gathering both qualitative and quantitative visitor information. In particular, the reliability of visitor statistics should be improved.

One of the most significant achievements of the visitor survey standardisation project was its impact on attitudes. Now attitudes towards visitor surveys are positive, and the surveys are considered important for the development of recreational areas. In a few years the number of visitor surveys has increased many times over compared with the previous level. Conducting visitor surveys and systematic counting of visitors by various methods has now been registered as one of the annual targets of the recreational areas managed by Metsähallitus. This being the case, the accuracy of visitor information is increasing and it will be exploited more actively in the future.

Although the primary objective of the visitor survey standardisation project was to create a uniform method for conducting visitor surveys for the use of the state and local governments, this method is also suitable for other than public agencies that want to conduct visitor and customer surveys. All those who need information about visitors or customers (e.g. nature tourism enterprises) can utilise the tested indicators when developing recreational services.

Information gathered from protected and recreational areas maintained by the state and local governments and registered in the national database can be used to assess recreational services and projects financed from the state budget and also to support the setting of targets, decision-making and the implementation of recreational policy. In the years 2002–2001, the Finnish government commissioned the Ministry of the Environment to prepare a programme for the development of outdoor recreation and nature tourism (2001). In

this task population statistics produced by the LVVI study and information from the visitor surveys was used. In the future, information produced by visitor surveys will be exploited in following up the development programme.

In recent years (especially since Finland joined the EU), ministries and other government bodies, such as Metla and the Finnish Environment Institute, have received many European and other international statistics surveys, which include questions about the recreational use of the natural environment. Monitoring of the sustainable development of natural resources also requires updated statistics that can be used to assess any changes in the use of the natural resources. In addition, national visitor statistics provide necessary and useful background information for research on recreational use of natural resources.

REFERENCES

- Dales, M., Foley, M. & Macgregor, C. 1993: Visitor monitoring training manual. – Scottish Natural Heritage, Edinburgh. 125 p.
- Erkkonen, J. 2000: Evon ja Syötteen alueiden kävijätutkimukset 1998 – Metsähallituksen luonnonsuojelujulkaisuja. Sarja A 115
- 2001: Kävijätutkimusten yhtenäistäminen luonnonsuojelu- ja virkistysalueilla: Tuloksia Pallas-Ounastunturin kävijätutkimuksesta. In Järviluoma, J. & Saarinen, J. (edit.) 2001. Luonnon matkailu- ja virkistyskäyttö tutkimuskohteena. Metsätutkimuslaitoksen tiedonantoja 796 p. 87-98.
- & Sievänen, T. 2001: Kävijätutkimusopas. Metsähallituksen luonnonsuojelujulkaisuja Sarja B. 62.
- Horne, P., Sievänen, T., Alenius, V., Iisalo, H. & Friman, T. 1998. Kävijälaskentaopas. Metsähallituksen luonnonsuojelujulkaisuja Sarja B. 45. 68 p.
- Ovaskainen, V., Horne, P. & Sievänen, T. 1999. Evon ja Teijon retkeilyalueiden kävijät ja kävijätyytyväisyys kesäkaudella 1996. Metsätutkimuslaitoksen tiedonantoja 726, 58 p. + appendices.
- Rauhala, J., Erkkonen, J. & Iisalo, H. 2002. Standardisation of visitor counting - experiences from Finland. (In this proceedings).
- Sievänen, T. 1992 a: Aulangon ja Ahveniston ulkoilualueiden käyttö ja kävijät. Metsätutkimuslaitoksen tiedonantoja 415. 70 p. + appendices.
- 1992 b: Aulangon puistometsän matkailijoiden mielipiteet. Metsätutkimuslaitoksen tiedonantoja 443. 39 p. + appendices.
- 1993: Kolin kansallispuiston kävijät. Metsätutkimuslaitoksen tiedonantoja 465. 56 p.
- (edit.) 1998: LVVI -tutkimus 1997-2000, esitutkimusraportti. Metsätutkimuslaitoksen tiedonantoja 702. 85 p. + appendices.
- (edit.) 2001. Luonnon virkistyskäyttö 2000. Metsätutkimuslaitoksen tiedonantoja 802. 204 p. + appendices.