Demonstration of methods
to monitor sustainable forestry

Forest use and its economic value for inhabitants of Skröven and Hakkas in Norrbotten

Erik Wilhelmsson

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The project is designed to review, demonstrate and develop methods to monitor sustainable forestry as defined by the pan-European process. It is supported by the EU-LIFE fund. Totally 7 organisations from Denmark, Finland, France, Germany and Sweden are participating. Lead agency is the National Board of Forestry in Sweden.

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Arbetsrapport 91 2002
Working Paper 91 2002

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ISSN 1401-1204
ISRN SLU-SRG-AR--91--SE

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Abstract

Wilhelmsson, Erik, 2002. *Forest use and its economic value for inhabitants of Skröven and Hakkas in Norrbotten.* Swedish University of Agricultural Sciences, Dept of Forest Resource Management and Geomatics, Working report, Umeå, 22pp. ISSN 1401-1204, ISRN SLU-SRG-AR- -91- -SE.

This report covers elaboration and demonstration of a method to quantify and evaluate the many uses of the forest for people living in a sparsely populated area in the north of Sweden. The uses are grouped into the forest or forestry as a source of income, value as environment for leisure time, value as residential environment, and finally other values. Ten households in Skröven and Hakkas in Norrbotten are interviewed. The interviewees describe their use and the amounts and frequencies, rank the four uses, and put a relative value in per cent on each use. The annual mean total value is 121 000 SEK. The various mean incomes are less then half (45%) of the value derived from all uses of the forest. Comparing the three uses that constitute the other half, all are of approximately equal value. The incomes concerned are from employment in forestry, from reindeer herding, from the sale of timber from a forest holding or from the increase in value of the holding, or from firewood.

Key words: forest use, value, interview, income, residential environment, leisure time

Sammanfattning

Denna rapport redovisar utformning och demonstration av en intervju-baserad metod för kvantifiering och värdering av användningen av skog i vid mening i glesbygd i Norrbotten. Brukandet av skogen delas in i fyra grupper: skogen som inkomstkälla, som miljö för fritidsaktiviteter, som boendemiljö samt övriga värden. Tio hushåll i Skröven och Hakkas ingår i studien. De intervjuade beskriver för sina respektive hushåll användningen i mängd och frekvens, rangordnar de fyra grupperna och bedömer det relativa värdet i % för respektive grupp. Den årliga totala värdet efter skatt är i genomsnitt 121 000 SEK. Skogen som inkomstkälla står för 45% av det totala värdet, medan övriga brukningsformer värderas till ungefär lika värden vardera. Inkomsten från skog och skogsbruk kommer från anställning inom virkesproducerande företag, renskötsel, virkesförsäljning, värdeökning på skogsfastighet, resp från ved för uppvärmning.

Preface

In July 1998 the European Commission approved the LIFE project "Demonstration of Methods to Monitor Sustainable Forestry". The project is a joint effort by the proposer, The National Board of Forestry, Sweden and the following partners:

- The Danish Forest and Landscape Research Institute, Denmark
- The Forestry Development Centre TAPIO, Finland
- Institut pour le Développement Forestier, France
- CEMAGREF, France
- Niedersächsische Forstliche Versuchsanstalt, Germany
- The Swedish Environmental Protection Agency, Sweden

The partners have co-operated with other national organisations within their countries. In all, there are 12 demonstration areas located through out the partner countries as indicated on the front page. The partners have arranged workshops to which also other European countries were invited. The first workshop was held in 1998 in Vällen, Sweden. This report *"The use and economic value of the forest for people in Skröven and Hakkas in Norrbotten"* presents the results of an interview study in the Skröven demonstration area carried out by the Swedish University of Agricultural Sciences. The Purpose of the study was to test a method for assessing information on the total use and benefits of the forest in rural Sweden. The result is seen as an indicator for the criterion *maintenance of other socio-economic functions and conditions*.

The National Board of Forestry

The Swedish Environmental Protection Agency

Contents

1 Introduction

1.1 Background

People use the forest in many different ways in various parts of Europe. Forests have a different meaning for different people. There have always being changing values placed on forests and this is probably still the case today. There have been changes in policies regarding forests in European countries during the 1990s towards a focus on sustainability.

One example of the manner in which these changes have become manifest is the adoption by the Ministers Conference on the Protection of Forests in Europe (MCPFE) of criteria and indicators for sustainable forestry. These criteria cover different aspects of sustainability in forest utilization, while the indicators subsumed under each criterion may be assessed and thus reflect levels of sustainability.

A wide range of monitoring methods have been demonstrated in the EU/LIFE co-financed project, "Demonstration of methods to monitor sustainable forestry." The aim of each method is to assess data relevant to the existing MCPFE *quantitative* indicators or the new indicators proposed within the project.

A method is presented in the present report for assessing the manner in which forests are utilized, in a broad perspective, and how the people involved value these various uses.

Sweden is one of a number of countries where methods have been developed and demonstrated for establishing how people utilize forests. Typical for the north of Sweden is large-scale forestry for timber production and dependence on timber production, as is the prevalence of reindeer herding and a sparse population density. The forest is probably of immense importance to the economy in such a region, providing not only employment opportunities in timber production but also as a base for tourism, reindeer herding, hunting, fishing, production of wild berries and mushrooms and wood for fuel. Official statistics do not provide data providing information about people's incomes from these latter activities. Thus other methods are necessary.

Questionnaires are frequently used for the assessment of the value assigned to uses connected with forests and forestry (i.e. Mattsson & Kriström 1987,

Hörnsten 2000). One advantage of this method is that it allows the possibility of obtaining a great number of respondents. The drawbacks are that the questions might be misunderstood or that people might not respond at all to the questionnaire, particularly if the questions are numerous and complex. For the purposes of the present study it has been considered to be of particular importance to gain information about the occurrence of all uses connected with forests and forestry.

1.2 Aims

The aims of the present study are to develop, test and evaluate an interview-based method in order to estimate the economic value of the forest for people living in sparsely populated regions. Economic value includes employment within timber production as well as other uses that may be assessed to have economic value. The uses should also be quantifiable in terms of some physical measure.

2 Method and material

2.1 Definition of use and value

The uses of the forest are divided here into four different groups:

1. ***The forest or forestry as a source of income***
   Typical are those forest owners who derive income from timber production and from the increase (or decrease) in value of their forest holding, as well as income derived from employment in forest companies or incomes derived from forest authorities. In addition, incomes derived from activities of companies based on the forest are included. Thus, the people in this group earn a living that is based on the forest

2. ***The forest as environment for leisure activates***
   People use the forest as an environment for leisure activities such as walking, taking a dog for a walk, hiking, hunting, fishing, picking wild berries, skiing and other sports, touring with a snowmobile and so on. This value includes products of value, such as meat and berries, which has a market value. The amount of these products - measured in kg and SEK - are shown separately. In this group are also included such activities in the forest that might be considered as work, but where the main purpose is in fact is recreation. Such people may have other sources of income but spend their leisure-time on activities concerned with timber production activities, the collection of firewood for fuel and other so on.

3. ***The forest as a residential environment***
   Here people live in villages that are in, or in close proximity to, the forest. The forest provides such things as shelter from the wind and an appreciation of the forest as a landscape feature. Where such people spend a considerable amount of their leisure in the forest, they may also appreciate living close to the forest because of the ease of access this allows for such activities.

4. ***Other values***
   People appreciate the forest as an environment for flora and fauna and for historical and cultural values. They may state this to be a value even when they do not enter the forest very often themselves. The forest as a work environment is also included here.

2.2 Data collection

It is presumably possible that interviews provide more opportunity for people to describe how they use the forest. It is not possible to place a market price on most of these uses and consequently people are not used to thinking about them in terms of such values. The interview situation permits people to describe their own use of the forest and for questions to be put to them as to how they rank different uses and the relative value they thereby place on each use. During the interaction between the interviewer and the interviewee, there are opportunities to explain more difficult questions and to motivate the interviewee to provide answers to the questions. Although such opportunities are provided during an interview, difficulties nonetheless also arise. Trost (1993) offers advice on how to carry out such qualitative interviews.

In the event of any of these uses having a market price, it should then be possible to estimate the level of income derived from it. From this and the relative values, it is then possible to first estimate the value, in SEK, per unit and the value of the other uses. However, where the interviewee or the household derive no such incomes, then reliance has to be placed on statements made by the interviewee regarding valuation in SEK. Such value is expressed in SEK per year, after tax.

Data collection is carried out using the following steps:

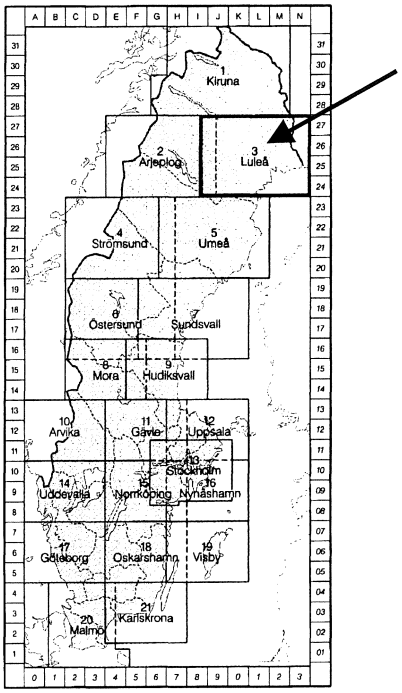
1. An initial telephone call providing a short presentation of the study and to enquire if the person concerned would be willing to participate in the study by being interviewed.
2. Written outline of the study despatched, together with confirmation of the agreed time for the interview, a short presentation of the interviewer, with photograph (see appendix 1), and information about the nature of the questions to be taken up.
3. Hopefully, the members of the interviewee's household initiate, as requested, an exchange of thoughts and views about possible answers to the upcoming questions.
4. The interview proper is carried out in the following format (4-7).
   The interview opens with a presentation of different uses, beginning with uses during leisure time - what activities are involved, how often they take place, and for how long. The next topics are the residential environment, income and, finally, any other uses. This first step is a useful way of establishing contact, of persuading interviewees to talk, and of encouraging them to think about what they do and what they think about it.

5. Ranking of the four uses, thereby establishing which use is considered to be most important and which the least important.
6. Estimate the relative value of each use in percentage terms.
7. The interviewer makes a preliminary rough estimate of the absolute values in SEK of each use, and then discusses the reasonableness of this calculation with the interviewee. Subsequently, the interviewee's own new assessment is used to adjust each calculated value (a kind of willingness to pay estimation) whereby these values are assigned a final value.
8. After the interviews have been completed, more detailed estimates and analysis are carried out. Comparisons with other studies.

2.3 The interviewees and their households

For the purposes of this study, the household is considered to be the relevant economic unit. Data collection is by means of interviews with residents of the Skröven area, including Hakkas. These villages are situated at a latitude of 67° north, on the E10 motorway between Luleå and Kiruna. Skröven is located 70 kilometres northwest of Överkalix, 70 km southeast of Gällivare and 25 km southeast of Hakkas, se map below.

Hakkas, with 500 inhabitants, is the larger of the two villages concerned, and Skröven the smaller, with only 35 inhabitants. There are also other small villages in the area.



Map with arrow showing the localisation of Skröven. © Survey Sweden, from the map "Bladindelningskarta", (permisson no dnr 507-98-4720).

The telephone directory was used to select households for an initial telephone call. Where the first name of the listed person was one that is generally now only common among the older generations, the household was not selected for participation. Both males and females were chosen. As a result of the initial telephone calls, five households immediately declared that they did not wish to be interviewed or that there were other pressing reasons for not participating. The households were selected in such a manner that half the participants were from Skröven and half from Hakkas and neighbouring villages.

Of those households willing to participate, two consisted of one person only, four consisted of two persons and a further four households also included children. In eight of the households, it was a male member who was to be the interviewee, in one household, a male and a female participated in the interview together, and in one household, a female was the interviewee. Two of the interviewees were under 40 years of age, in seven cases they were between 40 and 60 years of age and in one case over 60 years of age.

Seven of the households owned forest holdings, in four cases rather extensive holdings and in three cases only modest holdings. One household derived income from reindeer herding and one other from employment in forestry. Two households provided estimates of the value of the forest for leisure activities, of which one household also reported use of the forest for firewood.

2.4 Valuation of timber production and firewood

Where one member of a household is the owner of a forest holding, the value of the timber production (Vt) is estimated as follows:

$$Vt = A * G * V * Iat$$

Where A denotes the area of the forest holding in ha
G denotes growth volume, assessed as 2.3 m3/ha
V denotes the value of forest holdings, here 150 SEK/m3sk
Iat denotes that proportion which is net income after 30% tax

These figures are based on the local experience of Anders Fredriksson of the Regional Board of Forestry in Gellivare.

There are several ways of assessing the value of firewood. It is relatively time-consuming to saw, transport and prepare firewood. Were a household

to be entirely dependent on oil for heating, the annual cost would be approximately 25 000 SEK. For the purposes of the present study, the annual value of firewood is assumed to be 15 000 SEK. The motivation for this differential is not only that there should be an income margin as a return for the work involved with firewood, over and above the cost for a chainsaw, petrol, transport etc, but also that there are cheaper fuels available for heating other than oil.

3 Results

3.1 In general

The results are reported in a manner here that ensures the anonymity of the interviewees.

The annual mean total value is 121 000 SEK. The various mean incomes are less then half (45%) of the value derived from all uses of the forest. Comparing the three uses that constitute the other half, all are of approximately equal value.

The incomes concerned are from employment in forestry, from reindeer herding, from the sale of timber from a forest holding or from the increase in value of the holding, or from firewood.

With regard to the value of different forest uses, the forest as an environment for leisure activities has the lowest and, as might be expected, income has the highest coefficient of variance.

Table 3.1. Valuations of the various uses of the forest

	Source of income, SEK after estimated tax	Value as environment for leisure activities	Value as residential environment	Other values	Sum of values
Mean, SEK per annum	55 000	24 000	22 000	20 000	121 000
As percentage	45	20	18	17	100
Standard deviation	77 000	16 000	21 000	22 000	114 000
Coefficient of variance	1.41	0.68	0.92	1.08	0.94
Mean for the three uses with highest total value	145 000	42 000	34 000	43 000	263 000
Mean for the four uses with mid-range total value	19 000	23 000	25 000	14 000	82 000
Mean for the three uses with lowest total value	19 000	6 000	8 000	5 000	38 000

All absolute values are positively correlated. The greatest degree of correlation is to be found between income and the value of the forest as an environment for leisure activities, and between the latter and value of the forest as a residential environment. The relative value (percentage of total value) of income is negatively correlated with all other values. The relative value of the forest as an environment for leisure activities is positively correlated with its relative value as a residential environment. There is no correlation between the values of other uses and the relative value of the forest as an environment for leisure activities or value as a residential environment.

Table 3.2. Different uses, correlation between values and percentage of total value

Uses	Correlation between values, in SEK	Correlation between percentages of total value
Income and value as environment for leisure activities	0.74	-0.68
Income and value as residential environment	0.47	-0.74
Income, other values	0.36	-0.52
Value as environment for leisure activities and value as residential environment	0.63	0.39
Value as environment for leisure activities and other values	0.57	-0.05
Value as residential environment and other values	0.54	0.04

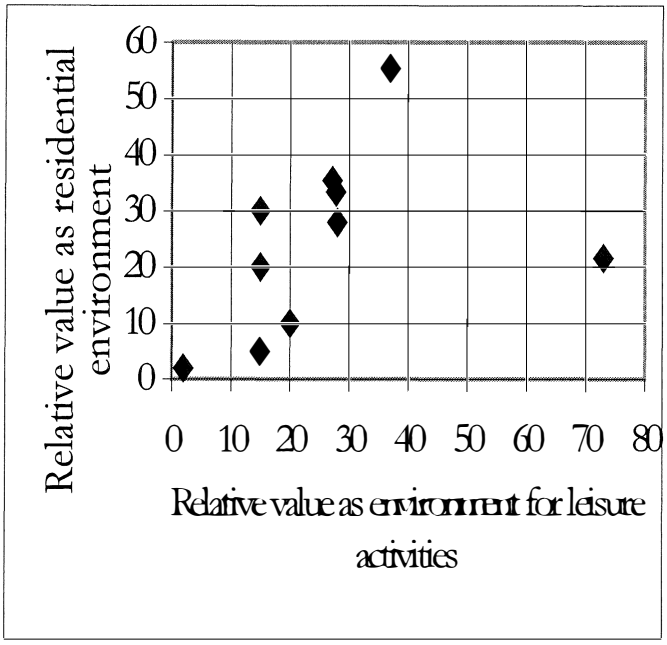


Figure 3.1. Relative value of the forest as environment for leisure activities compared to its value as residential environment.

The typical ranking of the values of the various uses is as follows: income, value as environment for leisure activities, value as residential environment and, finally, value for other uses. However, a number of households have ranked some of these uses as being of equal value.

Table 3.3. Ranked frequencies of the value of the uses

Rank	Source of income	Value as environment for leisure activities	Value as residential environment	Value for other uses
1	4	1	3	2
2	2	5	3	1
3	2	4	3	5
4	2	0	1	2

3.2 The forest as an environment for leisure activities

The respondents in this study pick wild berries, such as cowberry (*Vaccinum vitis idea*), bilberry (*Vaccinum myrtillus*) and cloudberry (*Rubus chaememorus*). They pick such quantities as they require for their own household needs, which total about 20 kg per annum and this work takes between 2 and 3 days. However, one of the households reported that they picked much more than this, thus increasing the quantity collected to an average of 30 kg per annum. None of the households in the present study reported picking mushrooms.

Game hunting is often considered to be very important, especially by many of the people in sparsely populated areas in the north of Sweden. In this region of Sweden, moose are the most important game, but forest birds and hare are also hunted here. The interviewees in this study report that, on average, seven days each year are dedicated to hunting, mostly for forest birds, which do not yield any large quantities of meat. In the data presented in Table 3.4a, such product value has been excluded from the recreation value.

Table 3.4a. Number of occasions for different leisure uses, and values

Percentage of all households	Number of occasions					Value		
	Wild berry picking	Hunting	Walking, walking with the dog	Touring with snow mobile, skiing, walking and fishing, making a fire, eating hot dogs and drinking coffee etc	Work with forestry, reindeer herding or firewood (for both pleasure and work)	Value of recreation (product value excluded, see table 3.4b)	Number of occasions	Value per occasion
Average	2	7	62	26	61	23 000	157	150
The three with the highest recreation value	3	4	0	45	135	43 000	187	230
The four in mid-range	2	13	150	23	50	22 000	237	90
The three with lowest recreation value	2	3	5	10	0	5 000	21	250

The value of berries and meat are estimated to be 10 SEK/kg and 40 SEK/kg respectively, giving a total mean value of 600 SEK per annum. Thus, on average, only 2% of total recreation value is based on product value. For the three uses with the lowest recreation value, product value is 15% of the total recreation value. Some households report a product value that constitutes between 20% and 25 % of total recreation value.

Table 3.4b. Quantities and value of wild berries and meat from hunting

Percentage of the households	Quantities and value		
	Quantity of wild berries, kg	Quantity of meat, kg	Estimated value of berries and meat, SEK
Average	31	7	600
The three with the highest recreation value	55	1	600
The four in the mid-range	24	1	300
The three with lowest recreation valuation	15	20	1000

3.3 The forest as a residential environment

There are considerable differences in the value various households place on the forest as a residential environment, although their motivational arguments are very similar.

Table 3.5. The motivations for the value placed on the residential environment

Arguments	Value
The three households reporting the highest value: *Would be less conducive to live in a larger community; secluded; the odours, light and sounds of the forest; the fauna (with exception of the drawback of insects); shelter from wind and cold weather; natural beauty; feelings associated with life cycles and profundity.*	47 000
The four households in the middle-range: *Shelter against wind, the prospect (view), seclusion, opportunities for feeling at ease at home, advantages of having forest at close proximity good to have the forest close by.*	15 000
The three households with the lowest value: *Proximity to nature gives rise to feeling at ease at home, seclusion, regrets about declining population of the small community.*	7 000

3.4 Other values

The value of other uses is shown in Table 3.6.

Table 3.6. The motivation for, and the value assigned to, other uses

Arguments	Value
The three households assigning the highest value: *Environment allowing fauna and flora to exist, quietness, solitariness, soothingness, source of strength, the forest as a work environment, historical and cultural areas and sites.*	49 000
The four households in the mid-range of value *Environment allowing fauna and flora to exist, historical and cultural areas and sites.*	12 000
The three households assigning the lowest value: *Environment allowing fauna and flora to exist (but must not be allowed to be at the expense every thing else, employment opportunities are more important).*	2 000

4 Discussion

4.1 The results

Since these results are based on interviews with only ten households, they should be considered as a limited number of examples that provide some indication of the number and variation of uses, and the value assigned to them, in terms of the number of days that are dedicated to them and the resulting product in weight (kilograms).

There are also a number of other sources of uncertainly. Kriström (1995) describes some of them in a description of contingent valuation, including response frequencies, unwillingness to respond, construction of the scenario, the mode of questioning and so on. Furthermore, the present study is also based on ranking, which itself gives rise to further uncertainty when constructed by means of a comparison of pairs, even where the results of such comparisons are perfectly consistent (Leiskanen, 2001).

The present study indicates that the total value of the forest is much higher than the value derived from the production of timber.

The values reported here describe the priorities of the various households and interviewees. The level of these valuations is dependent on a large number of variables related to these particular individuals and the wider society in which they live and also, probably, on variables related to the status of the forest. When discussing "other values," some of the interviewees brought up conditions and phenomena, which they consider to be negative, such as lodgepole pine (*Pinus contorta***)** and clear-cut forestry.

As income from forestry or forest-based activities increases, the absolute value of the forest as an environment for leisure activities, for residence and other values, also increase. But these latter increases are not directly proportional to increases in income. There are a number of possible explanations for this, including (a) increases in income in general lead to a higher valuation being assigned to other uses, (b) those individuals who earn their living from the forest, for that reason also report greater appreciation of other uses of the forest, (c) those who, in general, appreciate the forest, have also chosen to work in forestry or forest-related activities.

The value assigned to hunting is not as high as might have been expected. If any of the interviewees and their households had owned a hunting dog, then the reported number of hunting occasions, the quantity of meat thus produced, then the assigned value would probably have been higher.

4.2 The method

Most interviews could be completed in about one hour. The first step was to introduce the nature of the interview and to establish contact with the interviewee. The second step was to focus the interview on eliciting answers to the relevant questions and to bring the interview to a satisfactory conclusion by means of discussion. However, quite some time was devoted, in addition, to locating the household and driving there, as well as preparing the appropriate documentation. Nonetheless, it was possible to visit ten households in the space of two days, including evenings. In a number of cases it proved difficult to confine the interview to a period of less than one hour, although most interviewees seemed to consider that one hour was a reasonable upper limit for the length of the interview.

Even though evenings would have been the most appropriate time of day for the interview, a number of those approached were very positive and willing to adapt their planned schedule in order to be at home at the specific hour of the day that was agreed for the interview. One necessary attribute for the interviewer is to have a strong stomach for coffee!

Five of the people who were contacted by telephone did not wish to be interviewed. A couple of those contacted were subsequently no longer available to be at home at the agreed time for the interviews (technically, non-response) and others simply refused to participate at all. Thus, for all those with whom initial contact was made, the response frequency was 77% (10 /13), which is relatively high. This response frequency may be compared to that of 53% for a postal questionnaire conducted by Hörnsten (2000), and those of 69% to 82% that Hörnsten (op cit) found during a review of other studies concerning forest recreation in Sweden.

The form of interview reported in the present study is probably an advantage with regard to achieving a high response frequency. One reason why this is so is that there is some face-to-face interaction between the interviewer and the interviewee such that any questions that are unclear or misunderstood may be explained further on the spot. None of the interviews reported here had to be terminated before completion.

Most of the interviewees were male. In some cases, the household consisted of one single men, while in other cases the female member of the household was either not at home or took no, or little, active part in the interview. However, for this interviewer it was felt to be of importance to make it clear that it was considered an advantage if both the male and female participated, and also that particular attention was being paid to any contributions made by the female.

A number of the interviewees stated that they found it difficult to assign relative and absolute values to the different uses. They found ranking easier. The stepwise method that has been used here probably made things easier for the interviewees. However, there is perhaps a risk that the interviewees might have assigned too great a weight to calculated values rather than to their own direct valuation.

There are also other risks. The season of the year in which the interviews took place may lead to there being biases in the responses. The interviewees were requested to respond with answers based on the previous three years, so that hopefully this would adjust for seasonal and annual variations in uses. Further, the interviewees may have assigned values that were too high as a result of idealisation, since visits to the forest and forest use no doubt are considered to be good habits or because to value flora and fauna is considered to be politically correct. It is also possible that interviewees attempted to give tactical responses in order to contribute to preserving the high value of the forest, on the assumption that this would help to reduce the risk of the forest being felled. Thus the interviewer attempted to maintain a neutral tone with regard to the form of the questions and during the interview itself.

It is important that the different uses of the forest be clearly defined. This is often easier said than done because various uses may be closely linked. Thus, a person may work with forestry activities primarily for leisure but, at the same time, be carrying out productive work having market value. Another person may work in the forest but still be gaining pleasure from the forest environment. Reindeer herders may provide their stock with supplementary fodder whereby it would not be entirely accurate to claim that all the income eventually earned from that herd is to be regarded as income derived from the forest. Similarly, one may ask what proportion of the value of fishing is derived from the forest and what proportion is derived from elsewhere.

Another case is where the value of such commodities as jam made from wild berries might have other values, over and above the product value, such as the value gained from consuming produce you and your family have picked yourselves in your own forest, or some other local forest, and turned into jam using a traditional family recipe.

If your home is surrounded by a forest environment, you may be still enjoying the forest in a particular way while you are carrying out work tied to the house. It is also likely to be the case that those people who live in, or in close proximity to the forest, do so because it means they will have very

few other people in their immediate neighbourhood. Then such people might place value on solitude and seclusion rather than on the forest itself, since a residence providing such solitude may be also available in other types of natural environment such as an open landscape. Another similar reason is that taxation on rural properties is relatively low. Further, to reside in a rural area is a general way of life, which is not only available by living in, or near, a forest. A forest holding or a house in, or near, a forest might well have been inherited and for this reasons have a value higher than the market price. There is considerable value to be derived from the sentiments invoked when having home-made jam from berries picked in the family's own forest holding, served up for friends together with the product of a good day's hunting.

Some of the interviewees were not asked to answer the questions that dealt with the preferred types of forest when this would have tended to imply a divergence from the main course of the interview. However, the replies from those interviewees to whom the questions were put, indicate that a preference for having older trees on one side of the house, with an open landscape (i.e. agricultural land) or an expanse of water to the front of the house.

As stated above, a strength of the method employed in this study, is that the interviewer is able to provide assessments and comments on the answers previously elicited from the interviewee. One interviewee commented on the forest as a residential environment being assigned a value of 50 000 SEK, by stating, "It may seem high, but I would not move from here for that sum annually".

If the use of, and work with, firewood is to be used as a reference value, a model for calculating that value is required. People may well consider firewood as providing an opportunity to supplement their incomes, or to reduce their cost of living, but providing firewood also implies a considerable amount of work, not always giving much pleasure. Work with firewood may be regarded as work proper or as leisure, where it can be considered to be a system comparable to the oil system or to the wood chips system, two systems having different costs. In addition a firewood system may be used, but the firewood itself may have been bought in or the work involved have been paid for.

Further, it is difficult to use the income derived from small forest-holdings alone as a reference. The values derived from various sentiments and the value to derived from hunting rights connected to property ownership, paid by hunting associations, might well be relatively high compared to value derived from timber production.

One way in which the method described in this study might be improved would be to provide the interviewee with a print-out of the valuation, so that the interviewee and the rest of the household could ponder this and discuss it, and then have their opinions transmitted to the interviewer by means of a follow-up telephone call a few days later.

The conclusion drawn here is, nonetheless, that the method works satisfactorily and provides reliable results, even though there are a number of uncertainties. Consequently, it would be of great interest to develop the method further, including its possible use as a postal questionnaire.

Acknowledgement

Professor Leif Mattsson at SUAS has given valuable advice. Ranger Anders Fredriksson at the Regional Board of Forestry in Gellivare has helped me with contacts and advice. The participants in the interviews not only took their time to answer my questions, but also provided coffee and sandwiches, and even lunch. Karl Gustafsson at the National Board of Forestry has suggested improvements to the report. The EUs LIFE fund, through The Board of Forestry, has provided financial support. The text has been scrutinized by Mr Al Gibson. To all of you thank you very much.

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Institutionen för
skoglig resurshushållning och geomatik

2002-02-14

Information om intervju om hur Ditt hushåll har nytta av skogen

Hej

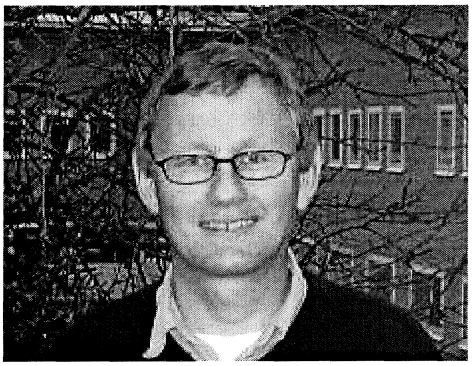
Tack för att jag får intervjua Dig/Er om vilken nytta Ni i hushållet har av skog.
Intervjutidpunkt: ____-dag ___ september kl _____

Projektet, som drivs av Skogsstyrelsen och finansieras av EU, handlar om demonstration av metoder för att följa utvecklingen inom ett uthålligt skogsbruk. I Sverige ingår två områden, dels Skröven (med omgivning) dels Vällen i Uppland. Dessutom ingår områden i Danmark, Finland, Tyskland och Frankrike.

Skogen har en stor inverkan på befolkningens ekonomi, inte bara i form av arbetstillfällen i skogsbruket eller eller inkomst av skogsägande, utan också för turism, rennäring, jakt och fiske, bär- och svampplockning, som energikälla, boendemiljö och annat som bidrar till försörjningen eller livets trevnad.

Mitt uppdrag handlar om att utveckla en intervjumetod (enkätmetod) för att kunna mäta skogens denna betydelse för befolkningen i glesbygd. Frågorna finns på bifogade sidor. En del av frågorna är kanske oklara och svåra eller omöjliga att svara på. Förhoppningsvis kan detta redas ut under intervjun eller också får stryka en del frågor. I slutet på intervjun får Du/Ni tycka till om frågorna. Studien kommer att redovisas så att enskilda personer och hushåll inte kan identifieras.

Om tiden inte passar, VV meddela mig på telefon 070-2850305 eller 090-191535 bost kvällstid. Till jobbet är det 090-7865827, men jag är upptagen av undervisning i stort sett hela måndag och tidag 24 och 25 sept. Jag jobbar som lärare och forskare på SLU (Skogshögskolan) i Umeå, bla med skogsbruksplanering.



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