

Role of Forest in Society – Perceptions of Forest Owners and General Public

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Abstract - During the last decades the awareness of environmental issues in forest management is increasing because of the change in environmental education. The perceptions of forests, sustainable management and ecosystem services were studied by two surveys. The general public and forest owners were the two target groups. The questionnaires had similar questions, but two different methodological approaches were used - CATI system for general public opinion survey and semi structured questionnaires for forest owners. The second one contained more detailed questions regarding the forest property. All together answers from 1503 respondents (general public) and 150 forest owners were evaluated on following topics: sustainable forestry, main group of ecosystem services, perceptions of forest. The assumption that forest owners awareness of forests differ from general public and their only management objective is economical profit, has not been approved. Results suggest that people are mostly satisfied with the forest management in Slovakia and they understand the trade-offs between different ecosystem services and their utilization.

perceptions of forests / forest owners / general public

1 INTRODUCTION

The awareness of environmental issues in forest management is increasing due to changes in environmental education. According to the national strategy for environmental education adopted in 1996 and revised in 2006 the key factor for environmental education is the education and training towards sustainable development. The so called “environmental minimum” contains following topics: biodiversity maintenance, deforestation, and soil erosion, rational use of natural resources, air, water and soil pollution, depletion of the ozone layer, acid rain, greenhouse effect, energy consumption, waste, urbanization and population explosion (Izakovicova 2010). Forests are an essential component of the landscape and play an important role in environmental education.

Over the last few decades, crucial changes have taken place in the views and demands on forests by society at large. This includes the increased environmental awareness and recreational interests of society (Hajduchova – Sulek 2011). These changes also affect the

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public's way of looking at the traditional role of forests as producers of raw materials. At the same time the urge to re-orient societies towards increasingly "bio-based economies" results in higher demands for raw material, not only for increasingly sophisticated products, but also for renewable energy (Rametsteiner et al. 2009).

Forests have acquired a new and more global meaning in modern society, going beyond their role as a productive and usable resource. For a growing part of the population, forests represent a space accessible to the public for recreation. At the same time, forests are more and more identified as a natural environment. This new development reflects the needs and preferences of contemporary society and the desire of an increasing urban population for recreation in natural surroundings. It also reflects people's concern over the impending threats to the environment and biodiversity. The wish to preserve the forest is expressed in demands for limiting forest exploitation and protecting areas in a close-to-natural state. For many people, the protection of environment and landscape has become a major criterion for judging overall performance in forest management (Schmithusen 2007).

The meaning of sustainable forest management expands from its primary focus on wood production to include a wide range of different combinations of forest uses meeting economic needs and opportunities as well as addressing dynamically changing social and cultural values (Schmithusen – Seeland 2006). This brings new stakeholders into the forest policy making process. These stakeholders come with perceptions, values, attitudes, and interests regarding forests and the forest sector (Krott 2005). For this article two stakeholder groups were analysed. The first one was the general public and the second one was forest owners.

The aim of this article is to present the awareness of the general public and forest owners on forests, sustainable management and ecosystem services.

2 MATERIAL AND METHODS

The perceptions of forests, sustainable management and ecosystem services were studied by two surveys. The general public and forest owners were the two target groups. The questionnaires had similar questions. The questions for the surveys were prepared with input from several experts in the field, including academics as well as practitioners. The first questionnaire for the general public opinion survey contained 10 questions. The second semi structured questionnaire for forest owners had 44 questions and contained more detailed questions regarding forest property. All together answers from 1503 respondents (general public) and 151 forest owners were evaluated on following topics: sustainable forestry, main group of ecosystem services, perceptions of forest.

General public survey

The survey was carried out by a professional agency. The results of the public survey include the responses collected from January until February 2013. In total, 1503 citizens were contacted via telephone and provided valid responses until February 28, 2013. The age, and residence distribution is shown in the *Tables 1 and 2*:

Table 1. Gender and residence distribution

Gender	Capita	Residence	Capita
Female	726	Urban Areas	819
Male	777	Rural Areas	684

Table 2. Age distribution

Age	Capita
18–24	126
25–39	385
40–54	483
55+	509

Forest owners' questionnaire

The questionnaire for forest owners was sent by regular mail to 639 forest owners in June 2013. The target group were private forest owners preferably members of forest owners associations from different regions in Slovakia. The return rate was 23% (151) by the 10th November 2013. The age, and residence distribution is shown in the *Tables 3 and 4*.

Table 3. Gender and residence distribution

Gender	Capita	Residence	Capita
Female	14	Urban Areas	53
Male	137	Rural Areas	98

Table 4. Age distribution

Age	Capita
18-24	0
25-39	6
40-54	28
55+	117

In this article seven questions (Q) were selected and evaluated. Together with the answers (A) they are presented in *Table 5*.

Table 5. Evaluated questions

General Public Survey Questionnaire		Forest Owners Survey Questionnaire	
Q 4	People have different opinions on why to maintain and enhance forests. Which of the listed options do you think should be the most important in Slovakia?	Q 16	Which of the following options why you own the forest is the most important for you?
A	economic purpose, ecological values, social aspects, other	A	economic purpose, ecological values, social aspects, other
Q 2	How often do you visit the forest?	Q 18	How often do you visit the forest?
A	once a week, once a month, never	A	once a week, once a month, never
Q 3a	How you spend your time in the forest? For what purpose do you go into the forest?	Q 19	How you spend your time in the forest? For what purpose do you go into the forest?
A	recreational, NWFP, other	A	recreational, NWFP, other
Q 3b	I do not go into to forest because:	Q 20	I do not go into to forest because:
A	I don't feel safe in the forest I have no time I am not interested in my forest	A	I don't feel safe in the forest I have no time I am not interested in my forest
Q8	People have different opinion on private forest management. In your opinion rate, as in school with marks from 1 to 5, how private forest owners and their associations take care of their forest property.	Q 21	In your opinion rate how private forest owners and their associations take care of their forest property.
A	1, 2, 3, 4, 5	A	1, 2, 3, 4, 5
		Q 22	What are your plans with your forest property in the future?
		A	sell, lease, leave for children, expand, buy new forests, no plans, other
		Q 23	How do you evaluate your forest property in terms of your expectations?
		A	Satisfied, not satisfied, don't know

Questions were evaluated separately according to their order. The first part of the questionnaires contained general questions relevant for further sampling regarding age, gender, education and residence. Questions 22 and 23 were asked only in the second questionnaire aimed at forest owners. The answers were compared between the both surveys and are presented in figures. Q22 and 23 were evaluated for urban and rural areas because the questions were asked only in the second questionnaire.

3 RESULTS AND DISCUSSION

In the Q4/Q16 public and forest owners were asked about the main purposes that forest should serve for. Most of the public regards ecological values as the most important (83,69%), whereas the forest owners prefer the economic purpose (40,89%). This corresponds with other research conducted in this area by Rametsteiner et al. (2009) where European public places higher value on forest conservation and forests' protective functions than on forest utilisation aspects, contrary to forest owners whose main concern is the economic profit from their property. An overwhelming majority of people in Central Europe, for example, link the economic function of forests mainly to the production of wood itself.

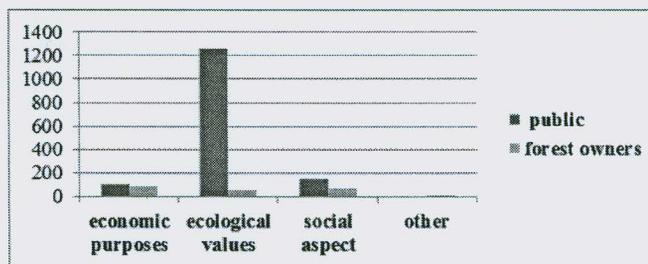


Figure 1. The purpose for maintaining and enhancing forests

The frequency of forest attendance is evaluated in Figure 2. Most of the public visits forest once a month (63,41%), whereas the forest owners visit the forest regularly (74,17). In Germany a nationwide quantitative survey concerning forests and forestry was conducted in 2007. 49% of the respondents stated enjoying a visit to a forest. In contrast, only 19% of the questioned German public stated that the forest is not interesting for them (Kleinhüchelkotten – Wipperman 2007). In Lithuania of the respondents who had visited forests, 25% said that they visited at least 3-4 times per year (Mizaraitė – Mizaras 2006).

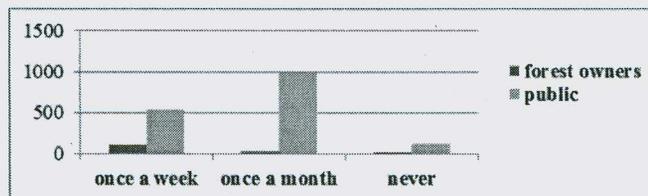


Figure 2. Frequency of forest attendance

From the 123 respondents that stated never going to the forest only one was from the forest owners group, the others were from the public. The main reason for the non-attendance was lack of free time (68) followed by the disinterest of the forest (46). Only 6% of the public does not feel safe in the forest (Figure 3).

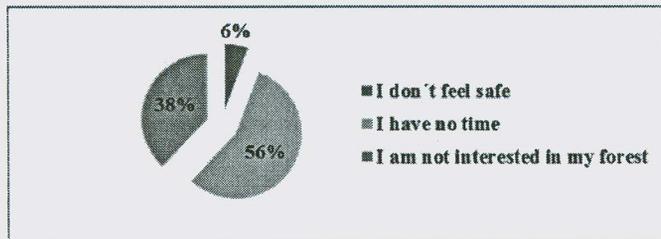


Figure 3. Reasons for not visiting the forest

The main purpose for visiting forests for both groups was recreation (79,87% of the public and 68,70% of the forest owners), followed by non-wood forest products (Figure 4). The recreational category included following activities: tourism, sport, rest, and hunting.

The results in other European countries are similar, e.g. in Germany, 77% of interviewees stated seeing the forest as a place for recreation and relaxation; 55% of the questioned public stated using the forests for recreational walks, other activities included observing nature (42%), collecting herbs (20%), having barbeques and parties (17%), as well as jogging and 'Nordic walking' (17%) (Kleinhüchelkotten – Wipperman 2007).

A survey from the Czech Republic stated that the collection of non-wood forest products, such as mushrooms and different kinds of berries, had a high recreational value for people in the Czech Republic (Šišák 2006).

According to a survey in 2007, the most popular forest activities among Swiss citizens were recreation and various kinds of sports activities followed by the gathering of non-wood forest products (Seeland et. al 2007).

In the study conducted by Rametsteiner et al. (2009) interestingly, recreational purposes were not ranked as one of the top two most important benefits by European citizens. This contradicts findings of previous studies and the expectations of forest experts across Europe.

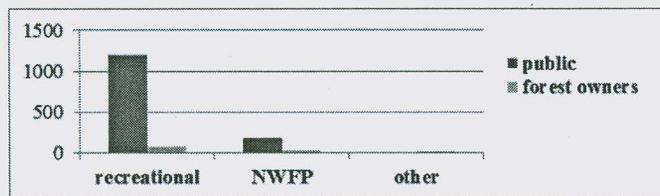


Figure 4. Main ecosystem services forest should provide

In the Q8/21 respondents could rate the forest management conducted by private forest owners. The marks were the same as at Slovakian school system where 1 being the best and 5 being the worst. The general public rated the private forest owners mostly with the mark 2 and 3. Private forest owners themselves marked their management with 2 followed by 1 and 3.

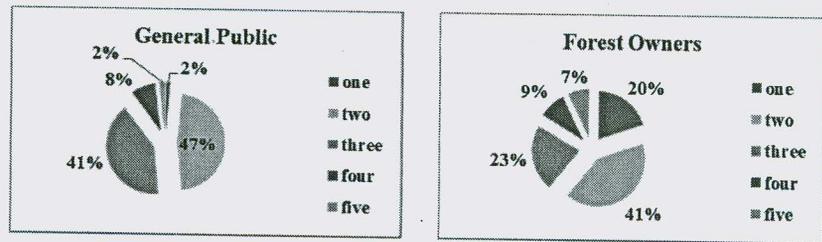


Figure 5 and 6. How are private forest owners managing their forests?

Last two questions were asked only in the second questionnaire for the forest owners. The questions regarded the owned forest property. Table 6 illustrates the plans with the forest property. The majority of the forest owners plan to leave their property for their children. Interesting is, that people living in rural areas are more keen to keep or expand their property.

Table 6. Plans with the forest property in the future

	sell	lease	leave for children	buy new forests	no plans	other
urban areas	1	2	31	13	0	6
rural areas	0	3	66	23	2	4

Most of the forest owners are satisfied with their property (Table 7).

Table 7. Expectations of the owned forest property

	satisfied	not satisfied	don't know
urban areas	43	3	7
rural areas	78	11	9

Ecosystem services tend to be more important for people living in Central Europe (10.1% rank them as most important topic) compared to other regions. They are considered least important by people in North Western European countries (3.8%). Again a high variation exists across countries in the regions. About 16% of people in Slovakia rank them as most important, followed by Finland (15.3%), and Slovenia (Rametsteiner et al. 2009).

4 CONCLUSIONS

Results suggest that people are mostly satisfied with the forest management in Slovakia and they understand the trade-offs between different ecosystem services and their utilization. As the results of the public survey have demonstrated, the general public has expectations as regards forests and forestry for greater protection and management for ecosystem services (emphasis on ecological values before economic purpose), contrary to forest owners who stress the economic function. In the future there is a need to work with young generation to improve their knowledge about forestry and forests. The education program prepared for schools where the elements of forest pedagogy are included is also in line with these findings. In the next survey that will take place in following years, we are expecting changes in perceptions on ecosystem services and higher trust in foresters.

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