

BRASOV COMMUNITY PERCEPTION ABOUT FORESTS FUNCTIONS

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Abstract: *The paper presents a qualitative research aimed to identify the perception of Brasov local people regarding the forest functions and their role in the community life. Most of the interviewed subjects know the forest functions, according to their answers. For more than a half of the respondents the production and protection functions have an equal importance and the others appreciated protection to be more important. The main threats for forests, as resulting from the questionnaire are: pollution, the lack of ecological education, intensive logging and the large number of buildings close to the forest areas. An impressive number of the respondents stated their willingness for volunteering in projects aimed to protect forests, but are not informed about such actions.*

Keywords: *community perception, forest functions, qualitative research.*

1. Introduction

Forests are extremely important for human society. It was said that human civilisation started with the felling of the first tree and will end when cutting the last one. From early ages, forests provided the wood necessary for fire, tools, buildings etc. and offered shelter for ancient communities. Also in the future, despite the technological advance, humans will be dependent of the forest products and services [3].

There is always a demand for forest products, especially for wood, and consequently their value is given by the

market. Recently, people become more and more aware of the importance of forest protective functions, or the services provided to the society, but their value is much more difficult to be evaluated [2].

Forests have production and protection functions. The main protective functions (or components of the protective function), as considered in the Romanian zoning system [1], are:

- water protection;
- land and soil protection;
- protection against climate and industrial threats;
- recreation;
- scientific and genetic conservation.

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The communities' perception regarding forests and their functions, which depends on personal experience but also on other factors (such as mass media etc.), is presently considered to be highly important for a successful sustainable management. Consequently, there are numerous studies focusing people perception on forests and forestry practices all over the world, from the Italian Alps [4] and North America [5], [10] to Malaysia [8] and China [11]. These are revealing some common elements but also significant differences related to the local forest peculiarities and the categories of stakeholders considered.

In Romania there is an increased interest for forests, as observable in the mass media, but in our opinion there are some unclear aspects that could affect people perception. For instance, many consider any illegal cutting to be deforestation, some persons think that all wood extractions should be prohibited and so on. Thus, studies focusing local communities, aimed to identify the perception of population about forests and their role are very important. Those could assist in determining the real problems that need to be addressed and the areas where more information are required.

This study was aimed to identify the perception of Brasov local people regarding the role of the forests in the community life.

In order to reach the above stated aim, the following objectives were established:

- O1: Identify the extent to which local people have knowledge about the concept of forest function;*
- O2: Establish the Brasov's citizens opinion regarding the importance of the two*

main forest functions (protection and production);

- O3: Study the perception of local population regarding the management of Brasov forests and the main factors affecting the quality of these woods;*

- O4: Determine the level of information regarding the initiatives of different companies (Corporate Social Responsibility schemes) for forest protection projects and the citizens' willingness to participate in forest protection activities.*

2. Material and Methods

In order to achieve the objectives previously listed, a qualitative research was conducted. The sample was made of 40 subjects, having ages between 17 and 65 years. There are several recommendations for the sample size in a qualitative research, some authors suggest a sample of 12-26 subjects [6] and according to Ritchie "as a very general rule of thumb, qualitative samples for a single study involving individual interviews only often lie under 50. If they become much larger than 50 they start to become difficult to manage in terms of the quality of data collection and analysis that can be achieved" [9].

In this research, the sample was made of 40 subjects. As regards the sample structure, there were 62.5% female and 37.5% male subjects, 67.5% were higher education graduates, 22.5% with high school studies and 10% completed post graduate studies. The age distribution of the sample subjects is presented in Figure 1, where it could be easily observed that the dominant age category is 20-30 years.

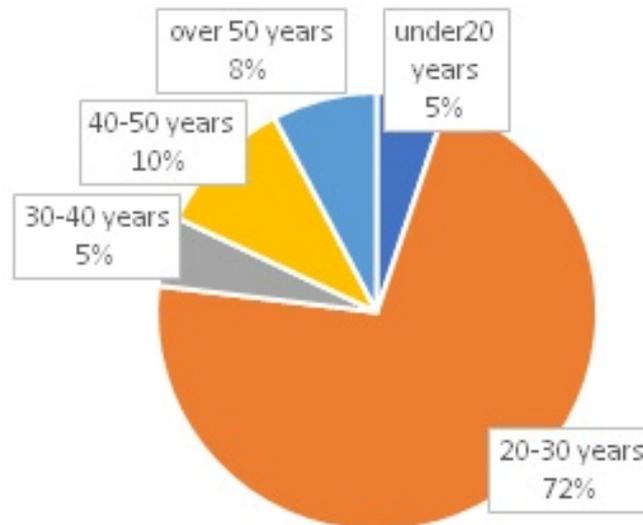


Fig. 1. Age distribution of the sample subjects

The interview guide comprised a set of 15 questions, including questions focusing general information such as the period lived in Brasov, the area of residence and the forest areas the subjects use to visit (questions 1, 2 and 3), questions aimed to identify the opinion of the subjects regarding the role of forests in the life of the community (questions 4, 5, 6 and 7), questions about the forest status and the disturbing factors in the subjects opinion (questions 8 and 9), questions regarding the subjects information about forest protection projects and their eagerness to volunteer in such activities (question 10, 11 and 12) and the last three questions were designed to collect the information necessary for determining the sample structure on age, gender and the level of studies completed.

The qualitative research method used was the explorative investigation. The interviews were conducted between June 2018 and August 2018 and were afterwards transcribed in order to conduct

a content analysis. One of the limits of this qualitative research is that the results cannot be extrapolated to the entire population and for this reason a quantitative study, based on an extended sample, is planned to be undertaken in a future research.

3. Results and Discussions

In the content analysis the questionnaire answers were analysed in correlation with the above stated objectives.

The majority of the interviewed subjects lived in Brasov for a period long enough for having a well defined opinion on the studied issues (60% more than 10 years, 32% between 3 and 10 years and only 8% less than 3 years).

The subjects have their residence in all neighbourhood areas of the city (Astra, Tractorul, Centrul Civic, Răcădău, Bartolomeu, Blumăna, Braşovechi, Florilor, Noua, Dârste, Poiana Braşov, Şcheii Braşovului, Timiş-Triaj). The forest areas

most frequently visited by the subjects are *Tâmpa* (33%), *Poiana Braşov* (27%) and *Noua* (20%), as indicated by the answers at the third question, illustrated in the chart (Figure 2).

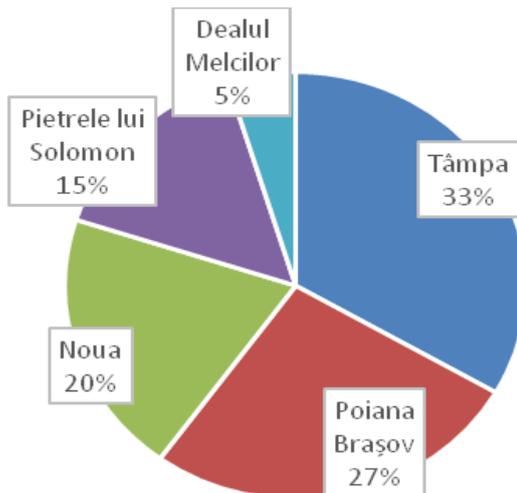


Fig. 2. The forest areas mostly visited by the interviewed subjects

As regards the first research objective (O1: Identify the extent to which local people know the concept of forest function) a very large part of the subjects (87%) stated their awareness on this concept.

The most interesting answers offered by subjects to the question number 4 (*In your opinion, which is the role of forests in the community life?*) were those of subjects: S1 (*"In my opinion forests have a vital role in communities' life. The most important roles are that of providing the oxygen necessary for life and that of wood production, which offers business opportunities"*), S8 (*"The forest role in communities life is to protect us against natural hazards -as recently seen, where deforestation occurred there were catastrophic floods, to reduce pollution and to provide oxygen, silence and*

health"), S25 (*"Forests help in reducing climate change, are sources of wood products, food and water, offer shelter for numerous wildlife species"*), S22 (*"The forest is like a member of my family"*), S26 (*"It maintains the ecological equilibrium, represents a source of food for men and animals and a source of wood"*) and S33 (*"Forests prevent erosion and landslides, provide oxygen and absorb carbon dioxide, reducing pollution, offer a place for relaxation and outstanding landscape"*).

By synthesising the answers at this question it occurs that the most frequent mentions were: provide the life necessary oxygen, ecosystems protection, benefits for human health, pollution reduction, opportunities for relaxation in a beautiful scenery.

As concerns the second research objective (O2: Establish the Braşov's citizens opinion regarding the importance of the two main forest functions: protection and production), 54% of the interviewed subjects considered both functions of equal importance, for 46% respondents the protection function is more important and none indicated production as the priority function. It is interesting to observe the large number of respondents that appreciated the production function as having an equal importance, given that presently this role is not often mentioned in the mass media. By processing the answers at the seventh question, asking the subjects to evaluate the importance of each protection function components (ranking them from 0-not important to 5-very important) it resulted that the sample average rankings have close values for all the components (between 3 and 4), due to the importance rankings scattering among subjects. As shown in Figure 3, the most important

function was appreciated to be 'Protection against climate and industrial threats' (probably due to the word 'climate' that presently focuses much people attention), followed closely by 'Land and Soil Protection'. The relative ranking of 'Water

Protection' could be explained by the absence of recent floods in the Brasov city area, because at national level the link between floods and deforestation is very well acknowledged.

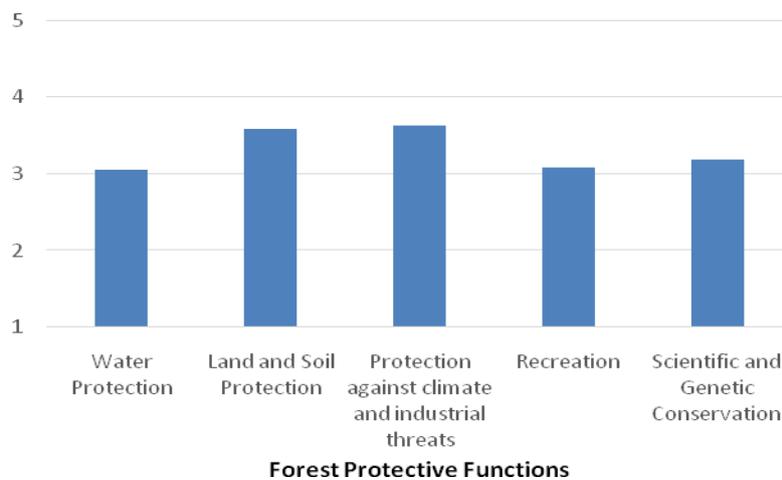


Fig. 3. Average rankings of the forest protective function components importance

As regards the third objective (O3: Study the perception of local population regarding the management of Brasov forests and the main factors affecting the quality of these woods) only 57% of the interviewed subjects considered that these forests are well managed. The factors negatively affecting the quality of Brasov's forests (Figure 4) were indicated to be: pollution (27%), lack of ecological education (24%), intensive wood harvesting (22%), too many buildings close to wooded areas (20%), recreational activities (5%), too many large carnivores (2%). It is interesting to observe that among these factors only two are directly linked with forest management (wood harvesting and numerous large carnivore presence) the proportion of the subjects who mentioned them being about half of those who indicated that forests are not

well managed. Thus for many people is probably not clear which is the role of forest management. In this area, a public information campaign would be useful, and this is especially important given the ecological education problem indicated in many answers.

It is also interesting to observe that the number of large carnivores was considered to be a problem by only a few subjects. Brasov's bears were often present in breaking news, but it is possible to have the perception that this problem was solved. Most probably the perception would have been different in a rural area where households, gardens and livestock are much more affected. Also the question was referring to forests quality (not humans comfort), which is not directly affected by the numerous carnivore population.

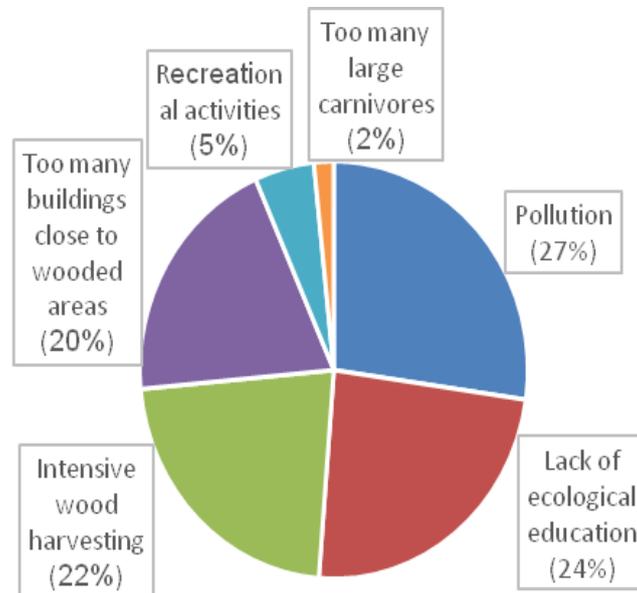


Fig. 4. *The main factors negatively affecting the quality of Brasov's forests, in the opinion of the interviewed subjects*

Another research objective was to determine the level of information regarding the initiatives of different companies (of Corporate Social Responsibility type) for forest protection projects (inside the respective corporations and in the community) and the citizens' willingness to participate in forest protection activities (O4). In our opinion, the values at the basis of the Corporate Social Responsibility actions have to be implemented in the organisation culture and the management teams should better promote this kind of actions for all the stakeholders (internal and external). For improving environment quality, managers have to ensure that the respective "policies and objectives are known at all levels of the company, determining people to do what they have to do, create

motivation and get feedback" [7]. The Corporate Social Responsibility actions focus ethical values concerning both inter human and men-environment relationships, which are related to the national and organization culture [12].

A percentage of 85% of the subjects answered that they have no information about initiatives in this domain. But there were also respondents who mentioned such projects: S1 (Siemens Company – *Tourist paths markings restoration project in the Brasov forests*/"Proiect de refacere a marcajelor turistice in padurile din zona Brasov"), S4 (Kaufland Company – *Let's do it Romania, Garantibank- Together we save Sinca's virgin forests/ "Salvam impreuna padurile virgine ale Sincii"* and Ina Schaeffler- *In harmony with nature*/"In armonie cu natura") and S27 (Dedeman –

Good plans for the environment/ "Planuri de bine pentru mediu").

A very large number of the respondents (75%) stated their willingness for volunteering in projects aimed to protect the forests from Brasov' area. It is a clear contrast between people interest, their desire for getting involved and the level of information about the ongoing actions.

4. Conclusions

The most important conclusions of this qualitative research could be synthesised as follows.

The forest areas most frequently visited by the respondents, who live in all Brasov's neighbourhoods, are Tâmpa (33%), Poiana Braşov (27%) and Noua (20%).

A large part of the subjects (87%) stated that they are aware of the forest functions. For more than a half of the respondents (54%) the production and protection functions have an equal importance and the others appreciated protection to be more important. It is noteworthy that even in this urban area and despite its relative absence in the mass media the production function is not neglected.

According to the answers at the questionnaire, 'protection against climate and industrial threats' is the most important, which could be explained by the present interest for climate but this result is also consistent with the most important role of forests indicated to be that of oxygen sources. The importance of the other functions was closely positioned, especially as regards 'land and soil protection' and scientific functions. Actually the average rankings over the

whole sample have close values, because the importance grades were widely spread among subjects. The relative position of 'water protection' could be explained by the absence of recent floods in Brasov urban area, but it is also possible that subjects, as differently from foresters, considered this function only related to water yield, while floods, caused by heavy rainfalls, were associated with a climate threat.

The majority of the interviewed subjects (57%) appreciated that the investigated forests are well managed but there were also many answers indicating the opposite. Perhaps the distinction between forest condition and management quality is not very clear, because on top positions among negative factors were listed external disturbances. Thus, the flux of information between forest managers and the population requires an improvement. The main threats for Brasov's forests, as resulting from the questionnaire are: pollution (27%), the insufficient ecological education (24%), intensive logging (22%) and the large number of buildings near the forest edge (20%).

An impressive proportion of the interviewed subjects (75%) affirm their eagerness to participate in actions aimed to protect the forests. The initiatives of local companies in this area are almost unknown (85% of the respondents have no information about such projects). It results that there is an important potential for involving volunteers in actions aimed to improve the quality of forests. There is also an increasing interest of companies for Corporate Social Responsibility actions, and consequently with these existing prerequisites an improved information system would be the key for future successful projects.

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