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Annotation

Name: Petr Hahn

Title of thesis: Marketing survey of public opinion on the use of countryside
in the South Moravian Region

The thesis deals with a Marketing survey of the public opinion on the use of the countryside in the South Moravian Region. Specifically, the public opinion on the current use of the following areas was surveyed: municipal and private green spaces, agricultural land, forestry, hunting, fishing, and nature protection.

Due to the field of study of regional development and entrepreneurship, the study is conceived more in terms of marketing and regional development than agriculture.

The theoretical part describes the South Moravian Region, its demography, economy, agriculture, forestry, hunting, fishing, renewable resources, and other trends that occur in this region.

The empirical part deals specifically with the research. It describes the data collection, analysis, evaluation, and the subsequent finding of relationships between the obtained data. Subsequently, recommendations and measures were given, especially for the South Moravian Region and the individual economic fields occurring in its territory.

Key words

public greenery, private greenery, agriculture, forestry, hunting, fishing, renewable energy, bioenergy, protected areas, regional development, South Moravian Region, satisfaction, questionnaire, chart, public opinion, survey, respondent

Anotace

Jméno: Petr Hahn

Název práce: Marketingový průzkum názoru veřejnosti na využívání krajiny
v Jihomoravském kraji

Tato závěrečná práce je zaměřena na marketingový průzkum názoru veřejnosti na využívání krajiny v Jihomoravském kraji. Konkrétně se v rámci této práce řeší názor na současnou formu využívání krajiny v následujících oborech: veřejná a soukromá zeleň, zemědělství, lesnictví, myslivost, rybolov, podpora bioenergií a ochrana přírody.

Vzhledem ke studovanému oboru regionálního rozvoje a podnikání je pojetí práce bráno spíše z pohledu marketingového a regionálně rozvojového než zemědělského.

Teoretická část práce popisuje Jihomoravský kraj, jeho demografii, ekonomiku, zemědělství, lesnictví, myslivost, rybolov, obnovitelné zdroje a další trendy vyskytující se na území tohoto kraje.

Empirická část se zabývá výzkumem samotným. Popisuje sběr dat, jejich analýzu, následné vyhodnocení a vytvoření souvislostí mezi získanými údaji. Následně jsou zde uvedena doporučení a opatření pro Jihomoravský kraj a jednotlivé obory vyskytující se na jeho území.

Klíčová slova

veřejná zeleň, soukromá zeleň, zemědělství, lesnictví, myslivost, rybolov, obnovitelné zdroje, bioenergie, chráněná území, regionální rozvoj, Jihomoravský kraj, spokojenost, dotazník, graf, názor veřejnosti, terénní šetření, respondent

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A ILLUSTRATION OF QUESTIONNAIRE PRESENTED TO RESPONDENTS

1 Introduction

The Czech Republic is a country with a lot of countryside areas – parks, forests, green lands, and water areas. Spending leisure time in the countryside is one of the favorite activities that people do. Due to this phenomenon the public opinion about the state and the quality of public greenery in the Czech Republic is very important. This diploma thesis describes the public opinion on the use of the countryside and public green areas which was assembled from the marketing survey of the public opinion of the region's inhabitants.

The countryside and nature generally is intended for two basic groups which are in relation to this area.

The first group is people operating the agribusiness (farmers, hunters, fishermen, foresters, etc.) and other competent authorities responsible for landscape planning (e.g. local authorities). The Czech countryside gives all businesses the premises that are necessary for agribusiness. The Czech countryside's current shape is only formed by these agribusiness activities.

The second group of people which is related to the Czech countryside are ordinary people, who spend the time in nature for recreation, relaxation, fishing, mushroom picking, and many other activities that may be done in these beautiful countryside areas. These people do not perceive the countryside as an area for doing business, but their main criterion for the evaluation and perception of this area is the scenic beauty of nature at the particular place at which they are.

It is clear that both interested parties should be satisfied and neither of them should be restricted in its activity. Although the countryside activities which are done by the ordinary people bring some positive and some negative impacts, anyway, it should be noted that the party which has the greater influence on the appearance and condition of the current natural landscape is a group consisting of farmers, foresters, hunters, and fish farmers. Their influence and the possibility to change anything is much greater than the influence of ordinary people.

The main difference between these two parties is that the agribusiness focused party is motivated by its own profit and they don't have such a motivation to be gentle to nature. It can easily lead to pillaging of land, excessive timber harvesting, and other negative impacts that reduce the quality of Czech nature and which do not allow ordinary people to spend their free time in nature well, or at least not in a way in which they would like to spend it.

In order to observe the realistic view of the ordinary people, the marketing survey was conducted. The result of this survey is mainly the evaluation of frugality, effectiveness of management, and impacts on nature which are caused by the farmers' activities and other responsible authorities and persons. The second goal was to observe respondents' opinion on the current situation regarding the use of renewable resources and bio energies in the form of solar energy, wind energy, and the use of rapeseed, maize, and other crops as an energy source.

The last goal of this survey was to observe how often the respondents visit the countryside, how much time they spend there, and what the main activities are for which they come to nature.

The results of this study may be used as a recommendation for all stakeholders of the Czech countryside environment in order to achieve an efficient compromise and thus achieve general satisfaction.

2 Aim

The aim of this diploma thesis is a Marketing survey of the public opinion on the use of the countryside in the South Moravian Region.

The chosen topic of this thesis is focused on the link between the regional development fields, i.e. tourism and leisure activities in relation to the current state of public and private greenery, activities of agriculture, forestry, fishing, hunting, construction, and the use of bioenergy plants in the South Moravian Region.

One of the most important partial goals was to create a quality questionnaire. In the end, this questionnaire contains 35 questions. As the next step the questionnaire was submitted to the addressed respondents within the whole South Moravian Region. The channel used for the collection of questionnaires was primarily personal data collection and an internet survey application was used in the rest of the cases. The completed questionnaires were then transferred to table form in MS Excel. All data was filtered to percentage results which are interpreted in the form of charts and also as written text in the empirical part of the thesis. Furthermore, correlations were identified between the most significant phenomena and recommendations addressed to individual stakeholders were written.

This research should serve to promote and develop the South Moravian Region in the area of quality and quantity of public greenery, the countryside and nature generally. The whole study should serve as a feedback addressed to all the local authorities, farmers, fishermen, hunters, and foresters who have influence over the state and quality of the environment in the Czech Republic.

3 A review of the literature

3.1 Regional development

Regional development is in the present sense a young scientific discipline. Its origins are in the 1930s (Křeji and Keller, 2010). Generally, the purpose of regional development is to reduce and minimize the disparities between regions and the efficient use of the resources of each region for their own benefit for the socio-economic development of the region (Hahn, 2013).

The various regional development theories can be classified in many ways; however, traditionally they are divided into two main groups. Included in the first group are *theories of regional balance* (e.g. convergence theories), whose authors tend to believe that the natural tendency of regional development is the reduction of disparities between regions. The second group consists of *regional imbalance theories*, whose proponents are convinced that in the course of the development, further enlargement of regional disparities is more likely (Blažek and Uhlř, 2002).

As reported by Wokoun (2008), two types of regional development are known. The practical and the academic. *The practical approach* is defined as the ability of a region to effectively use and increase the potential of a given area due to spatial optimization of socio-economic activities and natural resources. *The academic approach* of regional development is, according to Wokoun, the application of the various sub-disciplines. These are designed to find patterns in regional development. Once these patterns are found, the next step is to look for tools to influence regional development. These two types of regional development are then closely dependent on each other and subsequently reflected in regional policy that all such measures are applied in practice.

Regional development is one of the most important disciplines within which this diploma thesis operates. In the case of this study, the main goal of regional development is to improve the quality of the environment for recreation and leisure in the South Moravian Region in alignment with the effective functioning of agriculture, fishing and water management, hunting, and forestry, and thus the effective functioning of the

primary sector and more efficient land use planning in the area of public green spaces. This contributes to the socio-economic development of the South Moravian Region.

It needs to be mentioned that regional development does not only seek economic growth through the mindless support of activities that have a negative impact on the environment. It tries to find a suitable compromise, due to which the inhabitants of the region would be satisfied and thus achieve the so-called *socio-economic development of the region*.

3.2 Marketing

In the beginning of the 21st century, marketing is one of the most important sectors that exist in today's consumer society. Every enterprise today focuses primarily on the way their goods or services are presented and promoted to its customers. These activities together contribute to the success of the company on the market (Hahn, 2013).

Foret (2008) defines marketing as nothing else than the activity to know and be able to satisfy the needs and desires of customers better than the competition can. The main role of marketing is to improve the decision ability of costumers, which is essential for the continuing operation of the business. Therefore, it is very important for entrepreneurs and managers to monitor the situation on the market – especially their customers and competitors. The success of their other activities depends on the knowledge thus gained.

Kotler (2014) in his book *Principles of marketing* describes marketing as the managing of profitable customer relationships. The second goal of marketing is to attract new customers by promising superior value and to keep and grow the existing customers by delivering satisfaction. The main definition given by Kotler (2014) is that marketing is the process by which companies create value for customers and build strong customer relationships in order to capture value from customers in the form of revenue.

In this study it is possible to perceive the sample of respondents, which consist of *ordinary people*, as the *costumers* who use nature and the countryside as a *product* for relaxation and recreation. In order to achieve their greatest possible satisfaction, it was

necessary to design the survey to find out how satisfied they are. The *company* which is attempting to make its *customers* satisfied can be considered to be the government, which is represented by the local authorities or the Ministry of Environment of the Czech Republic.

3.3 Nature, the countryside and public green spaces

3.3.1 Nature

Human beings have had a close relationship with nature for many millennia and could never exist without nature. Previously humans perceived nature only as a food source, but nowadays in the modern era nature is not only perceived as a food source but also as an environment for relaxation, rest, and leisure activities. Nowadays the majority of people perceive nature in this way – as a space to relax and a space for spending their leisure time.

Hesková (2012) describes nature as an essential indispensable condition for the emergence of life and the functioning of our society. Nature is, in the broadest sense, everything that exists in the endless diversity of forms of existence.

The basic division of nature is into non-living and living nature (Hesková, 2012):

- *Non-living nature* – factors of non-living nature have an effect on living organisms in the long term or it is a part of their environment:
 - *Climate*: light, temperature, precipitation, air and its movement, humidity, pressure, electrical changes in the air.
 - *Soil factors*: composition, structure, the physical and chemical properties of soil and land surface.
 - *Hydrological factors*: water as an environment for organisms, its temperature, composition, motion, pressure, transparency.
 - *Physical-geographic factors*: position, altitude, slope and exposure.

- *Living nature:*
 - *Fauna:* animals.
 - *Flora:* plants.

3.3.2 The countryside

As reported by Binek (2007), the countryside is a specific environment that affects the character of the whole Czech Republic. Less than a third of the country's population lives in the countryside here, but its role is far greater. Even though in order to revive the rural areas it is necessary to deal with all the aspects of social, economic, environmental, and cultural history, this approach isn't quite common. The characteristic features of rural areas are created in the long-term, due to many factors. Therefore, the approach to solving these identified problems should be comprehensive and respectful of the wider territorial and socio-economic relations, supporting its sustainability trends.

As one of the approaches to the classification of the Czech countryside we can mention EUROSTAT's approach, which is based on the degree of urbanization. The algorithm was developed to classify every European region into one of three classes (European Commission, 1997):

- *Densely populated zones:* These are groups of contiguous municipalities, each with a population density greater than 500 inhabitants/km², and a total population for the zone of at least 50 000 inhabitants.
- *Intermediate zones:* These are groups of municipalities, each with a density greater than 100 inhabitants/km², not belonging to a densely populated zone. The zone's total population must be at least 50 000 inhabitants, or it must be adjacent to a densely populated zone.
- *Sparsely populated zones:* These are groups of municipalities not classified as either densely populated or intermediate.

3.3.3 Public green spaces

Public green space is, according to the definition of Ústav územního rozvoje in Brno (2006) a green space segment that can be defined as an area with a set of elements formed naturally or intentionally established and organized according to gardening and landscaping architectural principles. The used elements can be animate and inanimate – natural or artificial.

The greenery can be divided (there is no clear definition) into two main groups. *Residential green spaces* (urban, rural) and *green landscape* (Ústav územního rozvoje v Brně, 2006):

- *Residential green spaces*: Manmade nature in populated parts of the territory – built up area. The purpose of this type of green spaces is to provide its users recreation opportunities.
- *Green landscape*: It is largely formed by natural influences. Its main function is to protect landscape and soil.

3.4 Leisure time

Leisure could be defined as the period of time when a person is not forced (whether by internal or external influences) to fulfill their tasks and responsibilities.

Leisure time is considered to be the time in which an individual elects their activities based on their interests freely, according to their moods and feelings (MŠMT, 2002).

During this time period of leisure, an individual is able to do activities that he wants to do freely.

As early as in the Middle Ages, leisure time was perceived as free time for human beings, devoted to contemplation and prayer, but also as a time for various pastimes, games, and dances (Hodaň and Dohnal, 2008).

Another opposite definition of leisure time is the theory of Hofbauer (2008), which claims that leisure time is the time left after doing the work and other responsibilities

when an individual is not acting under pressure of their obligations arising from their social roles and the need to preserve and develop their family and genus.

Leisure time can be perceived according to three basic approaches (Bammel a Burrus, 1992 in Hodňan and Dohnal, 2008):

- *Leisure as rest*: the time that remains after performing all necessary activities for a human's own existence.
- *Leisure as a state of being, mental state*: the use of leisure time is perceived as what is happening inside the human (inner feelings).
- *For each one, leisure is what they consider it to be*: it is not possible to determine the moment in which an individual performs leisure activities, each person sees it differently.

“An average day's leisure time ranges from 4 hours 44 minutes to 5 hours 58 minutes for men, and from 3 hours 45 minutes to 5 hours 40 minutes for women.” (Monostori, 2009)

3.5 The primary sector

The primary sector is one of the basic parts of every economy. The development of this sector partly reflects the economic development of the country.

The raw materials sector, which is known as the primary sector and sometimes also known as primary production, covers all the sectors of human activities that transform natural resources into basic products (raw materials, products). These are the products of agriculture, crop production, animal husbandry, fisheries, forestry, and this also includes the extraction of raw materials (Management Mania, 2014).

For the purposes of this study we will further characterize the fields of agriculture, forestry, hunting, and fishing:

3.5.1 Agriculture

Agricultural activities are currently no longer viewed only as a tool for the production of raw materials and food security, but they are increasing their influence in shaping the

landscape, the functionality of the landscape, and its aesthetic value (Charakteristika zemědělství, 2011).

According to World Bank (2008): *“Agriculture is an effective engine for growth for most agriculture-based countries because they need to produce most of their own food, and they are likely to keep a comparative advantage in agriculture at least in the medium term. Consider food production first.”*

Trough their activities, farmers affect not only the general character of the neighborhood, but also contribute to the protection of the ecosystems, related plant and animal species and their natural habitats. Maintaining or increasing biodiversity leads to maintaining or improvement of the ecological stability of the territory (Charakteristika zemědělství, 2011).

According to Vošta (2010), agriculture is one of the sectors of material production whose final results are based on the company's immediate effects on nature. A specific feature of agriculture is its *production* and *non-production* (political, landscaping) function. Agriculture is mainly a food producer, thereby it is ensuring the physical functioning of the population. For this reason, it can be stated that its importance is growing. On the other hand, its function as a supplier of non-food commodities is getting weaker because it interferes with the huge competition coming particularly from the chemical industry which produces materials that are replacing traditional natural resources. Often their production is cheaper.

Farmers, first of all, have to be aware of the need to care for our natural resources. Their daily lives depend on these sources. To avoid the negative side effects of some of the farming practices, the EU provides incentives for farmers to work in a sustainable manner that protects the environment. Farmers thus face a double challenge – to produce food and at the same time protect nature and preserve biodiversity. Ecologically sustainable farming, which uses natural resources prudently, is essential for the production of our food and our quality of life – today, tomorrow, and for the future generations (European Commission, 2014).

Currently the legislation guides the European agriculture towards so called *ecological farming*. Ecological farming is based on the principles of steady development and the holistic world view. It is a production system that simultaneously seeks to preserve and enhance natural resources and environmental quality. Its systematic approach implies the need to balance economic, environmental and social aspects and links to the global and the local level. This type of agricultural activity is understood as a process of reasonable exploitation of the ecosystem, respecting its stability and persistence. Ecological farming is often wrongly confused with extensive or low input farming, although these various systems are only partially overlapping (Moudrý, 2006).

3.5.2 Forestry

“At the first Ministerial Conference on the Protection of Forests in Europe, held in Helsinki in 1993, sustainable forest management was defined as the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, production, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, that does not cause damage to other ecosystems.” (Sievänen, Edwards, Fredman, Jensen, and Inge Vistad, 2013).

According to Lenoč (2010), the forest is a natural part of our cultural landscape, it is the source of raw wood and it provides many other features that are closely related to the development and functioning of natural ecosystems. The importance of forests for human society lies in the provision of renewable natural resources and creating basic living space.

Forestry is a separate and very specific sector of the national economy and its peculiarities are reflected in its position, results, and management. The manufacturing process of forestry differs significantly from the production processes of other sectors, especially from the social production, including manufacturing which is seemingly close and with which it is sometimes compared (Matějčíček and Blud'ovský, 2001).

Forest production is characterized by an extremely long production period ranging from 30 to 160 years. This industry involves relatively short working time in relation to the extremely long production time of raw wood. Individual forest species have specific requirements for habitat properties, thus they are linked to a specific geographic environment. Furthermore, forestry is characterized by a large spatial dispersion, seasonality, dependence on natural conditions, and many other factors (Matějčiček and Blud'ovský, 2001).

3.5.3 Hunting

For more than a thousand years of tradition in the area of today's Czech Republic, hunting has been subject to regulation and social norms. Hunters are the bearers of important traditions and they take care of the hunting culture even today (Šeplavý, Růžička, and Pondělníček, 2006).

“The simple hunt has changed into game management in the course of human history. Game management is considered to be a collection of in-nature activities concerning the free-living animals and club activity.” (Ministry of Agriculture of the Czech Republic, 2005)

Hunting performs the function of creating and shaping the landscape and rural development, improving social contacts, the creation of community life and moreover it is a significant source of jobs. It went through quite a long historical development and even in today's modern society fulfills an irreplaceable role (Šeplavý, Růžička and Pondělníček, 2006).

In every period of development not only the relationship of man to hunt was shaped, but in time also nature conservation and planned management of game was shaped. Through historical development, hunting has changed into the scientific, economic, and cultural discipline of hunting. Today it is regarded as a set of activities carried out in nature in relation to wild game as part of the ecosystem. At the same time it is a federal activity aimed at maintaining and developing the skills of hunting, traditions, and customs as a part of the Czech national cultural heritage. Hunting also fulfills an

economic function of creating a balance between the need to protect animal species, its number, and limiting the adverse effects which some game species cause by their living activities. Hunting provides for a number of other human activities, such as engineering, food, clothing and leather industry, tourism, commerce, hospitality, health issues, scientific and research activities, and art crafts (Šeplavý, Růžička and Pondělníček, 2006).

3.5.4 Fishing and water management

“Recreational fishing is an important leisure activity for a large number of people all over the world. Apart from a way of relaxation for people in industrialized countries, recreational fishing certainly generates employment in rural areas in terms of related touristic and fishing services and may contribute to human nutrition.” (Kalous, Musil, and Petrtýl, 2013)

In terms of inland fish farming, state fulfills important social functions such as water management, landscape, cultural, and protective function. Fishpond farming is a specific form of aquaculture. Farming in fishing grounds consists of the management of river systems and maintaining fish communities in the water bodies where recreational fishing is carried out (Ministerstvo zemědělství ČR, 2007).

Šarapatka, Pavelková, Chmelová, and Frajer (2014) describe ponds as historic heritage and from the landscape point of view, they are important landscape elements. From the perspective of ecology, ponds are important local biocentres and compositional elements of the territorial system. From the landscape-ecological point of view, ponds tend to be relatively stable areas in the landscape mosaic. Hydrologically, ponds form the retention and storage spaces that slow down the water flow from the river basin. Geomorphologically, they are anthropogenic forms of relief.

We can look at fish farming from the point of view of humanities as well; ponds were historically an economic phenomenon reflecting medieval and early modern human activities in the landscape. They represent certain symbols of power, because their

construction was associated primarily with powerful aristocratic families or religious orders (Šarapatka, Pavelková, Chmelová, and Frajer, 2014).

3.6 Protected areas

Dudley and Stolton (2008) define protected area as follows: *”Protected area is an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. There are hundreds of different national names for protected areas. The IUCN (International Union for Conservation of Nature) guidelines are not intended to result in the re-naming of these reserves. All categories are equally important and equally relevant to conservation. It should be noted, however, that some countries may not contain the potential for using all categories.”*

3.7 Bioenergy

As Larson claims, there is an unmistakable link between energy and sustainable human development. Energy production is not an end in itself, but it is an essential tool to facilitate social and economic activities. Thus, the lack of available energy services correlates closely with many challenges of sustainable development, such as poverty alleviation, the advancement of women, protection of the environment, and jobs creation. Emphasis on institution-building and enhanced policy dialogue is necessary in order to create the social, economic, and politically enabling conditions for a transition to a more sustainable future (UN-ENERGY, 2007).

Renewable energy sources are those easily obtained on Earth in the form of energy originating from the nuclear reaction in the Sun's core. Other sources are the warm Earth's interior and the inertia of the Earth – Moon system. Mankind derives it in forms like e.g. solar, wind power, hydroelectric power, tidal power, geothermal energy, biomass, and more (Mastný et. al., 2011).

Mastný et. al. (2011) also states, that according to the *Czech environmental law*, renewable resources are defined as natural resources which have the ability, when they

are gradually consumed, to be restored partially or completely, on their own or with the help of man.

3.7.1 Biomass

The main advantage of biomass is its easy storability and a possible guarantee of balanced supply. All matter of biological origin can be considered as biomass (dendromass, fytomass, animal biomass). The most promising agricultural biomass is obtained either directly by targeted production (cereals, oilseeds, textile plants, grassland) or in the form of plant residues from agriculture and landscape maintenance (hay and straw) (Šťastná and Vaishar, 2014).

3.7.2 Water energy

Developed European countries (e.g. France, Great Britain, Switzerland, Germany, Austria, the Scandinavian countries, and others) devote a lot of attention to the construction of hydroelectric power plants. The hydropower potential of their waterflows is used nowadays to 65 % to 95 % and they continue to construct these plants (Šťastná and Vaishar, 2014).

The specificity of use of hydropower turbines requires use of various types, performance, dimensions, and designs according to the specific hydrological and morphological conditions of the place of installation (Šťastná and Vaishar, 2014).

3.7.3 Wind energy

Wind energy uses converted solar radiation and is therefore another source of renewable energy. Wind energy is the unequal heating of the surface of the Earth, causing pressure differences in the atmosphere. These differences in pressure are compensated by airflow (Vaishar and Šťastná, 2014).

The pioneer of contemporary wind energy use was the United Kingdom. In 1954, the first windmill that was connected to the electrical grid and thus produced electrical energy was built there (Čermáková, Tenkrát, and Prokeš, 2008).

3.7.4 Solar energy

Solar energy is the name for the energy that reaches the Earth in the form of sunlight. The energy released by the thermonuclear reactions in the Sun is transported to Earth in the form of electromagnetic radiation. Energy from the Sun is the most important primary energy source (Vaishar and Šťastná, 2014).

A solar module consists of a large number of photovoltaic cells and it is also used for the direct transformation of solar energy to electricity. For solar cells there are a number of materials and concepts, differing in shape and color, but also in their characteristics and performance (Haselhuhn, 2011).

4 Material

4.1 General characterization of the South Moravian Region

The South Moravian Region (SMR) is located in the southeast of the Czech Republic.



Figure 1: Location of the SMR in the Czech Republic.

Source: www.ceskarepublika.estranky.cz

This area consists of the counties Blansko, the city of Brno, Brno-countryside, Břeclav, Hodonín, Vyškov, and Znojmo.



Figure 2: Districts of the SMR.

Source: <http://skolkamaterska.cz>

According to the Czech Statistical Bureau, the SMR is divided into 21 administrative districts of municipalities with extended power. With an area of 719 522 hectares and a population of almost 1 173 948 inhabitants the SMR ranked as the fourth biggest in the country in 2014. The population in this region has a growing trend (ČSÚ, 2015).

At the end of 2014, there were 49 cities, 40 townships, 583 villages, and 1 military range in the SMR in total. Most of the population live in the city of Brno, where nearly a third of the inhabitants of this region lives. Average population density in the SMR is 157 inhabitants/km² (ČSÚ, 2015).

4.2 The socioeconomics of the SMR

4.2.1 Population in the SMR

According to the Czech Statistical Bureau, there were 1 175 025 inhabitants living in the SMR on December 31, 2015, which represents 11.1 % of the total population of the Czech Republic.

From the gender point of view, women in the SMR were prevailing. There were 1 044 women for every 1 000 men. This is influenced primarily by the gender composition of the city of Brno, where there are 1 075 women for every 1 000 men (ČSÚ, 2015).

The average age of the population of the SMR at the end of 2014 was 41.9 years. Women were on average 43.4 years old and men were 40.3 years old. The average age in the SMR has increased by 5.2 years since 1991. Specifically, in the case of men it has increased by 5.5 years and the average age of women has increased by 4.9 years. The population of the SMR, together with the inhabitants of the Karlovy Vary Region and the Vysočina Region, has the sixth highest average age in the Czech Republic (ČSÚ, 2015).

The development of the average age can be seen on the following figure no. 3:

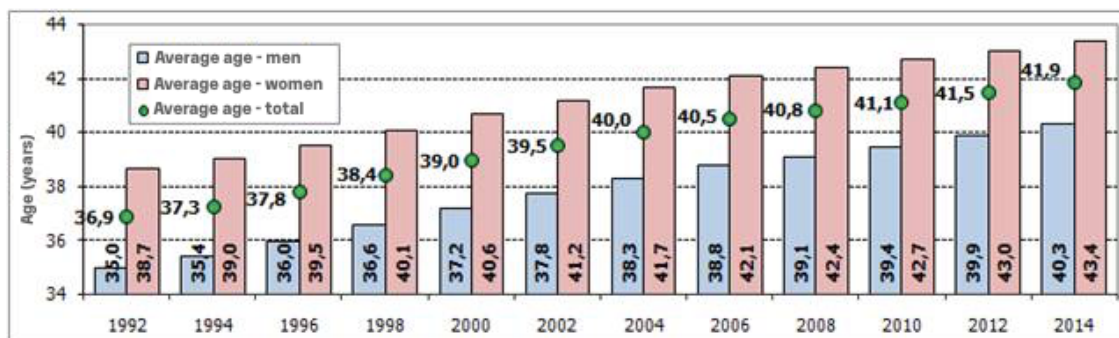


Figure 3: The average age of the population in the SMR in the years 1992–2014.

Source: Own work (ČSÚ Obyvatelstvo v obcích Jihomoravského kraje v roce 2014).

4.2.1.1 Migration in the SMR

The SMR, thanks to Brno, is among the most lucrative places to live in the Czech Republic. Therefore, large numbers of people from rural and remote areas move to the SMR and especially to the territory of Brno, whether they are migrants from within the region or coming from other regions. This fact can be easily seen on the following *figure no. 4*, which describes migration and the natural population growth in the South Moravian Region.

During the 2014 the SMR population increased by 2 775 persons. The population increased due to both natural population growth (about 1403 persons more were born than died in the region) and population growth due to migration (about 1372 people more immigrated into the region than emigrated from the region) (ČSÚ, 2015).

This migration trend is shown in the following figure no. 4.:

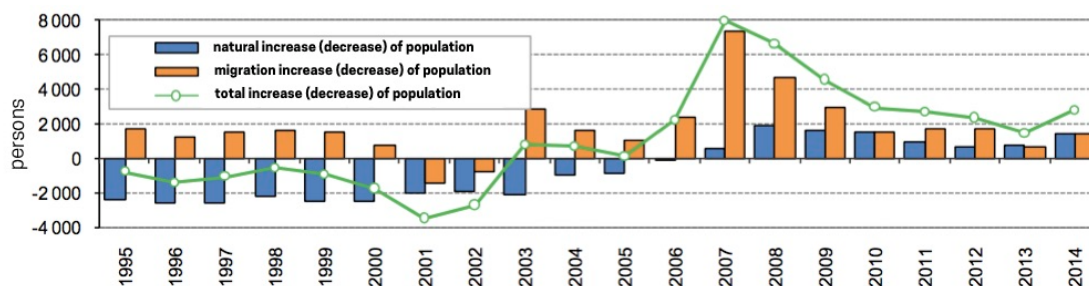


Figure 4: Migration and natural population growth in the South Moravian Region.

Source: Own work (ČSÚ Základní tendence demografického, sociálního a ekonomického vývoje Jihomoravského kraje).

4.2.1.2 Nativity and mortality in the SMR

The last demographic indicator in the South Moravian Region is the representation of the birth rate and the mortality rate in the SMR.

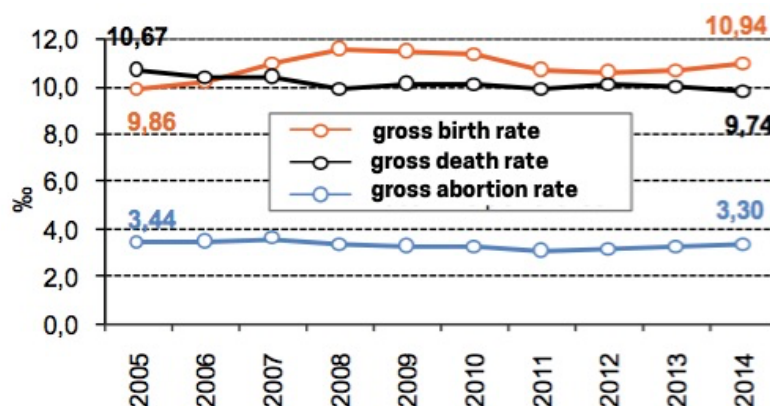


Figure 5: Nativity and mortality in the SMR in 2005–2014.

Source: Own work (Základní tendence demografického, sociálního a ekonomického vývoje Jihomoravského kraje)

As you can see from the figure above, nativity in 2006 outweighs mortality in the region, which has a positive impact on the population of the region, thus positive socioeconomic side effects.

4.2.2 The economy of the SMR

The SMR is located at the crossroads of important European transport routes. In terms of transport the SMR has an important transit function. The backbone of the transport system consists of D1, D2, R52 and I/43. The region's center can also offer the public international airport Brno-Tuřany.

The SMR is a region with a great economic potential. Especially in recent years there has been an increasing number of businesses in the areas of IT, telecommunications, software development, and other hi-tech industries. The SMR strongly supports the development of technology and biotechnology incubators designed for new companies. The quality university education system (e.g. Brno University of Technology, Masaryk University, Mendel University) is a factor in the above-average educational level of the population in the SMR (Oficiální web Jihomoravského kraje).

This region has a significant economic potential. Gross domestic product (GDP) in purchasing power parity per capita reached 75.8 % of the EU average in 2007. The main economic sectors are market services and manufacturing (Regional Development, 2009).

The general unemployment rate in the South Moravian region in the last quarter of 2016 was 4.2 %. The nationwide average unemployment rate in the same period was 4.6 %, which suggests that from the socio-economic point of view, this region fares exceptionally well (ČSÚ, 2016).

Data from 2014 and 2015 that are estimated by the Czech Statistical Bureau appear in *figure no. 6* below, however the real results do not differ.

According to survey results, the average wage in the South Moravian region in 2014 amounted to 26 116 CZK (29 209 CZK for men and 22 342 CZK for women), compared with other regions the wage was the third highest. Against 2013, the average monthly wage increased by 524 CZK (634 CZK for men and 390 CZK for women). Men's wages in the region have been higher in the long term than the wages of women, the differences between them grew again. In 2012, the average wage for women in the

SMR was lower than the men's wage by 6 684 CZK, while in 2013 the difference was 6 623 CZK and in 2014 already 6 867 CZK (ČSÚ, 2015).

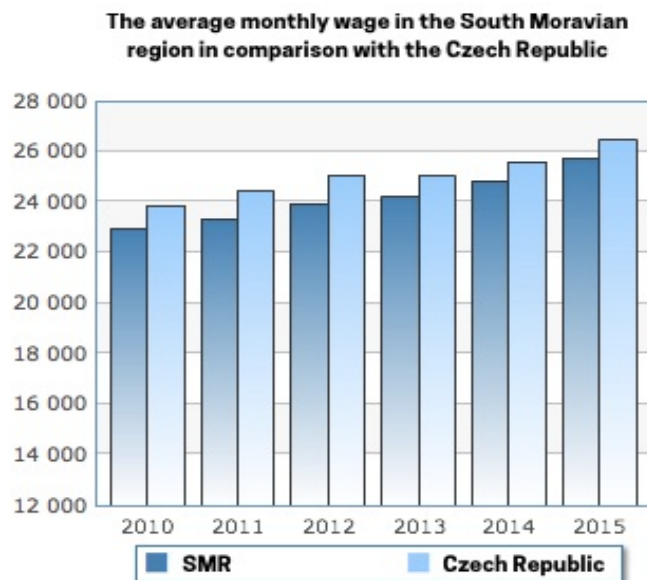


Figure 6: Average monthly wage in the SMR in comparison with the Czech Rep. in 2010–2015.

Source: Own work (ČSÚ Základní tendence demografického, sociálního a ekonomického vývoje Jihomoravského kraje).

4.3 Agriculture in the SMR

Agricultural production, together with the production of food, is one of the traditional sectors of the economy. The share of agriculture (together with forestry) in gross value added in the national economy is approaching the average of the former EU fifteen. Czech agriculture has a centuries-honored tradition, which has guaranteed the coveted national self-sufficiency in staple foods, as well as being the Central European corner of the world famous abroad. The agricultural exports have long consisted of mainly commodities like milk, live animals, grains, sugar, and malt (Oficiální web Jihomoravského kraje).

The South Moravian agriculture is at a high level. Agricultural land accounts for 60 % of the total region area, of which 83 % is arable land. The specialty of the SMR is primarily viniculture on the European level, the region is the home of many small wine producers and wine cellars. There is also a strong tradition of growing fruit and vegetables. The northern part of the region is an important centre of forestry and wood production. These conditions suitable for the development of viniculture are the reason the region has 17 800 hectares of vineyards, which is exactly 91 % of the vineyards in the whole country. Arable land, which covers 48.9 % of the region, dominates significantly in the structure of agricultural land (Oficiální web Jihomoravského kraje).

4.3.1 Arable land

The following *tab. no. 1: Grains and cattle in the SMR* illustrates the use of arable agricultural land and the state of livestock in the SMR:

	2011	2012	2013	2014	2015
Grains - sown area (hectares)	216 655	210 625	208 124	208 568	204 576
- harvest (tons)	1 316 126	855 094	1 177 182	1 289 182	1 173 579
Condition of cattle (units)	58 782	60 167	59 506	60 240	62 385

Table 1: Grains and cattle in the SMR in 2011–2014.

Source: Own work (ČSÚ Zemědělství).

This table shows that the sowing area has been slightly reduced in the past five years.

On the other hand, harvest of grains is disproportionate to sowing area in the individual years. In subsequent years, it has large fluctuations, which are probably caused by weather changes and other conditions affecting the growth of grains.

Conversely, it is possible to read from the table that the number of cattle in the SMR is constantly increasing. Current status falls somewhere around 63 000 heads of cattle.

4.3.2 Organic agriculture

Most of the SMR is traditionally used agriculturally, but with a high proportion of arable land and low proportion of permanent grassland to farmland, it is one of the regions with the lowest share of area of organically farmed land. In 2014, organic farming, in an area of 16 359 hectares, occupied only 3.8 % of the total area of agricultural land in the region. The halting of the growth of organic farming after 2011 was similar as in the other regions of the country. This was particularly caused by the closing of entry of new applicants into the Organic Farming subsidy program as a part of the agro-environmental measures of 2011, mainly due to the program period coming to an end and the depletion of the funds of the subsidy title. Stagnation in 2010–2014 can also be registered in the case of the changes in the number of organic farms; with 311 farms, the SMR is above average among the regions of the Czech Republic (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

In terms of organic food production, the highest number of these producers was registered in the SMR, i.e. 112 organic food producers out of a total 506 manufacturers in the country (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

4.4 Forestry in the SMR

In 2014, the total forest area in the SMR was 196 848 hectares, i.e. 27.4 % of its total area. This is the region with the third lowest forest cover in the country. Economic forests with the primary function of production of wood accounted for 63.5 %, *special-purpose* forests made up 2.3 %, and 34.2 % of the total forest area were *protective* forests (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

Deciduous trees should be naturally represented in the SMR with a share of 65 %, however in reality they only accounted for 52 %. In comparison with other regions this area is still above average (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

The most numerous group of conifers were pines, constituting 25.6 % of the total forest cover. Oaks were the most represented among deciduous trees at 21.2 %. Newly founded growths made up 51.5 % of deciduous trees, conversely conifers were the most mined (64.3 % of the total felled forest cover) (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

The trend of dealing with forests in the SMR in 2010–2014 can be seen from the following table.

	2010	2011	2012	2013	2014
Total afforestation (hectares)	1 514	1 637	1 626	1 875	1 978
Timber harvesting (m³)					
coniferous	904 255	649 335	774 605	747 049	734 706
deciduous	356 313	444 896	402 989	416 316	407 754

Table 2: Reforestation and harvesting of wood in the SMR in 2010–2014.

Source: Own work (ČSÚ Lesnictví).

Trees aged 61–80 years accounted for the largest age group in the forests of the SMR in 2014, while the average age of deciduous trees was 67 years and 63 years of coniferous trees (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

4.5 Fishing in the SMR

In the present, there are about 22 to 24 000 small water reservoirs in the Czech Republic, which is only about a third of the estimated number of about 75 000 ponds which emerged in the early 17th century. Almost the entire region falls into the Morava River Basin (about 86 %), only some parts of the region belong to the basin of the river Dyje (about 14 %). The density of the river network is 0.81 km/km² (Šťastná and Vaishar, 2011).

The presence of water in the SMR is completely dependent on precipitation. The annual total precipitation in the region reaches 450–700 mm. Roughly a half of the flows in the region are modified by people, most of these adjustments were made for the reasons of stabilization of riverbeds and as a protection against erosion. Drainage amelioration and adjustments of a wide range of small watercourses were done. These negative interventions into the water regime of the landscape caused fluctuations in surface runoff, sediment regime changes, acceleration of the outflow of high waters, reduction of groundwater supplies, reduction of the self-cleaning ability of flows, and reduction of the aquatic animals' migration (Šťastná and Vaishar, 2011).

There are twelve reservoirs in the *Dyjsko-svratecký úval* valley. Besides the retention effect, these reservoirs are designed to ensure the supply of drinking and service water and energy. In addition, there are numerous lakes and their systems (Pohořelice system, Lednice system, Hodonín system). In 2007, the updated list of small water reservoirs included lakes with areas greater than 1 hectare. The total surface of water area was 7 105 hectares (Šťastná and Vaishar, 2011).

This area offers plenty of space for active fishing, which is, mainly in the south of the region, a very popular activity while camping.

4.6 Hunting in the SMR

In 2014, a total of 9953 persons in the SMR were holders of valid hunting licenses and active hunters (ÚHÚL, 2015). There are 222 hunting associations in the SMR (Myslívost).

4.6.1 Hunting areas

There's a total of 6 572 600 hectares in the Czech Republic which are intended for hunting. Specifically, the SMR has a total of 609 403 hectares of hunting grounds, which is 9.3 % of the nationwide hunting areas.

The division of this area between different ecosystems is shown in the table below:

Total area of hunting grounds (hectares)	
Agricultural land	393 468
Woodland	178 350
Water area	10 389
Other lands	27 097
Total	609 403

Table 3: The allocation of hunting areas in the SMR.
Source: Own work (ÚHÚL Základní údaje o honitbě).

The hunting areas are subdivided into *private hunting areas* and *communal hunting areas*. The number of private hunting areas in the SMR was 131 in total in 2014, with a total area of 120 227 hectares. In the case of communal hunting areas, their occurrence is more common. In total there were 457 communal hunting areas in the SMR in 2014, with a total area of 489 077 hectares (ÚHÚL, 2015).

4.6.2 The number of game and hunting

The following table shows the *spring stock of game* in the SMR in 2010–2014. The spring stock is the minimum number of animals at a given population density necessary for natural reproduction. The current situation in the SMR is as follows:

Game	2010	2011	2012	2013	2014
Deer	2 697	2 634	2 813	2 606	2 586
Fallow	2 345	2 323	2 324	2 324	2 275
Mouflon	1 904	1 842	1 922	1 721	1 681
Roe	36 622	34 980	35 510	33 013	32 086
Wild boar	5 384	5 363	5 454	5 111	4 309
Hare	52 981	49 552	50 439	43 125	45 119
Duck	12 778	14 062	16 285	11 188	9 654
Pheasants	55 639	52 656	52 695	45 554	48 467

Table 4: The spring stock of game in the SMR in 2010–2014.

Source: Own work (ČSÚ Jarní kmenové stavy zvěře).

Game	2010	2011	2012	2013	2014
Deer	1 276	1 238	1 259	1 362	1 300
Fallow	1 221	1 072	1 250	1 318	1 407
Mouflon	863	718	752	774	751
Roe	15 166	13 878	13 073	12 702	12 468
Wild boar	14 607	10 178	21 972	11 807	17 274
Hare	19 361	17 326	21 096	12 673	16 345
Duck	16 579	17 121	15 715	14 314	15 487
Pheasants	99 141	117 731	115 576	105 012	120 164

Table 5: Killed game in the SMR in 2010–2014.

Source: Own work (ČSÚ Odstřel zvěře).

These two tables together do not correspond, even though they are obtained from the same source. They are based on verified data that are published by the Czech Statistical Bureau.

From the comparison of the *table no 4: The spring stock of game in the SMR* and the *table no. 5: Killed game in the SMR*, it is clear that hunting is well planned and quite wisely executed. The rate of hunting being higher than the spring stock of game only occurs in the case of those wildlife species which multiply rapidly and their incidence has an adverse effect on the activities of humans and other animals. In the Czech Republic, these especially include wild boar and foxes.

Given the reproductive abilities of animals and the fact that the number of kills has been long maintained at the same levels, it is clear that there's around twice the number of game in the Czech Republic than the official spring stock of game reports would suggest, especially deer.

4.7 Energetics in the SMR

4.7.1 Energy production

The SMR meets all the requirements for the significant development of renewable energy sources and it holds a stable position as one of the top suppliers of energy from alternative sources in the Czech Republic.

The region has a certain proportion of fallow land, which can be used for biomass production, which currently has the greatest technical potential. The high proportion of arable land supports the delivery of waste agricultural biomass. Forestry has a dominant position in the region. A marginal potential can be also seen in wood as a source of energy in forestry.

Due to the climatic conditions of the Czech Republic, *solar energy* also plays an important role in the SMR. The region has the highest annual average air temperature of the whole country and the highest average temperature during the summer (April–September). Due to these conditions the SMR accounts for 13 % of the solar energy production throughout the Czech Republic and ranks second after the Pilsen region with 16 %. There were exactly 1 737 photovoltaic plants in the SMR in 2014 (Šťastná and Vaishar, 2014).

The climatic conditions of the region on the other hand do not contribute to the development of wind energy, but there are a number of planned projects. The SMR is markedly below in terms of wind speed needed for energy production. Despite this, the region was fourth among the regions in the production of energy from wind in 2014 with 157 wind turbines (Ústav fyziky atmosféry AV ČR in Šťastná and Vaishar, 2014).

A traditional renewable resource potential is in the region's waterways and reservoirs. Due to its geographic conditions and a specific management system, the SMR has become the leading producer of alternative energy in the Czech Republic and has strengthened its position (Šťastná and Vaishar, 2014).

The balance of electrical energy production in the SMR can be seen in the following table.

	2010	2011	2012	2013	2014
Total power production (GWh)	85 910	87 561	87 573	87 065	86 003
steam power plants	53 580	53 928	51 696	50 167	50 117
hydropower plants	3 381	2 835	2 963	3 639	2 961
wind power plants	335	397	417	481	477
solar power plant	616	2 118	2 173	2 033	2 123

Table 6: The balance of production of electrical energy in the SMR in 2010–2014.

Source: Own work (ČSÚ Bilance elektrické energie).

4.7.2 Power consumption

The total consumption of electricity in the SMR is the fifth highest in the country.

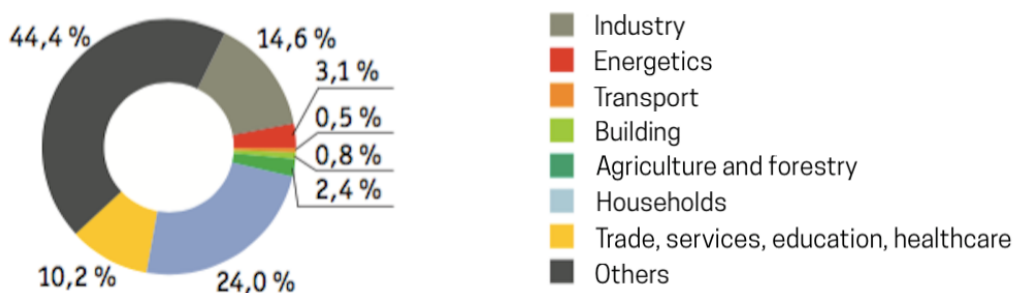


Figure 7: The consumption of electricity in the SMR in 2014.

Source: Own work (Energetický regulační úřad).

5 124.8 GWh was consumed in this region in 2014. The category *Others*, that includes e.g. culture, governance, and administration, significantly contributed (at 2 277.1 GWh) to the total electricity consumption in the region in 2014. Households consume nearly a quarter of the electricity. The trend in this sector does not show large annual fluctuations, the consumption is stable. In 2014, 1 229.4 GWh of electricity were delivered to households. The share of industry in the total electricity consumption in

2014 was 14.6 %, because the city of Brno is one of the largest industrial centers dominated by engineering industry (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

The share of solid fuels (coal and wood) in the region is lower than the national average (1.8 % compared to the national average of 8.1 %). These fuels are often combined. For households, a large role in the choice of fuel is played by its price. With the price of the fuel decreasing, however, its quality usually decreases as well, and thus it happens that residents, in order to save money on heating, often use less environmentally friendly fuels. These methods of heating are then largely reflected in the emissions from heating. The SMR has a relatively high population density, but due to the favorable ratio of fuels the monitored emissions from heating are much lower than the national average of emissions (Koblížková, Kratina, Mertl, Pokorný, Ponocná, Rollerová, and Vlčková, 2014).

4.8 Protected areas in the SMR

	National parks	Protected landscape areas	Small protected areas				
			Total	Containing			
				National natural heritage areas	National nature reservations	Nature heritage	Nature reserves
Czech republic	4	25	2 533	115	111	1 495	812
SMR	1	3	343	15	19	212	97

Table 7: The number of protected areas in the SMR.

Source: Own work (ČSÚ Počet a rozloha chráněných území).

In the territory of the SMR, we can find one national park and three protected landscape areas. These protected areas include the following:

4.8.1 Podyjí National park

Podyjí National Park is located near the border with Austria. The area is characterized by an extraordinary diversity of occurring animals and plant species in a relatively small area. The significant species diversity of flora and fauna is thanks to the location of the protected area on the border of two biogeographic systems (Miko and Štursa, 2010).

Podyjí National Park was established in 1991 on an area of 63 km². Area-wise, it is the smallest national park in the Czech Republic (Miko and Štursa, 2010).

4.8.2 Protected landscape areas

4.8.2.1 Moravian Karst

Moravian Karst is a very important karst area of the Czech Republic. The nature of the landscape is determined by karst plateaus separated by deep canyons gullies. More than 60 % of the land area is covered by forests with mostly natural species composition.

Over a 1 000 caves are registered there, 5 of which are accessible to the public (Miko and Štursa, 2010).

Moravian Karst Protected Landscape Area was established in 1956 on an area of 92 km² (Miko and Štursa, 2010).

4.8.2.2 Bílé Karpaty

Bíle Karpaty Protected landscape area is characterized by a large area of meadows, which is unparalleled in Central Europe. Regular maintenance of these meadows is one of the important tasks of the protected area management (Miko and Štursa, 2010).

For the exceptional natural and landscape values and the long-term harmonious use of natural resources by man, Bílé Karpaty were included in the World Network of Biosphere Reserves (UNESCO) in 1996 (Miko and Štursa, 2010).

Bíle Karpaty Protected Landscape Area was established in 1980 and its area is 747 km² (Miko and Štursa, 2010).

4.8.2.3 Pálava

Pálava Protected landscape area is harmoniously shaped landscape with a dominant feature called Pavlovské vrchy and with a significant proportion of natural or little affected steppe ecosystems and preserved historical settlements (Miko and Štursa, 2010).

In 1986 the area was included into the World Network of Biosphere Reserves (UNSECO). Pálava was established in 1976 on an area of 83 km² (Miko and Štursa, 2010).

5 Methodology

5.1 Completing the questionnaire

The overall methodology of the chosen topic was to build the ideal questionnaire. It was compiled jointly by a team of students dealing with the same kind of survey in various regions of the Czech Republic. The questionnaire was completed under the leadership of the thesis advisor, with whom the contents of the questionnaire had been consulted. The form of the questionnaire and its description will be mentioned below (a sample of the questionnaire is inserted in *Annex A*).

First, it is important to compile a brief and not too long a questionnaire in order not to bother the respondent by having them fill out the questionnaire. It is necessary, however, to have thorough and factual data obtained from the questionnaire for useful and further analysis.

Individual questions were submitted to inhabitants of the region. The survey gathered information regarding their views on land use in this region, the pros and cons associated with the functioning of the whole primary sector, the use of renewable resources, and their spending of leisure time in nature and the countryside. The structure of the entire questionnaire is described in the chapter *5.3.1 The structure of the questionnaire* below.

5.2 Data collection

The total data collection took two months, including several day trips to all parts of the SMR. The total collection of information took place in a relatively large area around the whole region, therefore those filled questionnaires differ, they have greater explanatory value and the result is not distorted by various factors of local character.

Among these various trips data collection was conducted via the internet application *Survio*, through which the questionnaire was sent to several tens of respondents.

Furthermore, the questionnaire was distributed to friends who subsequently forwarded the questionnaire to their families and their friends.

5.3 Analysis

The analytical part took the form of a field survey and a survey through the Internet. The data were collected unconditionally from residents of the SMR originally from municipalities of different sizes.

The questionnaire asked respondents to answer the sub-questions that formed the sample, allowing the synthetic stage to identify possible links and connections between the data and form a profile of the *typical male opinion*, *typical female opinion*, or to find the most striking *correlations* between the obtained data.

The survey contains questions from all the related disciplines, i.e. information about the respondent, their age, education, employment, their general opinion on the occurrence of public and private green spaces, opinion on the behavior of employees in agriculture, forestry, hunting, fishing, and renewable energy, handling of protected areas, or how often the respondent spends time in nature and what is the motive.

5.3.1 Structure of the questionnaire

The questionnaire was comprised of 35 questions. Respondents chose the answers by checking some of the canned responses. The whole questionnaire was written in the Czech language for better understanding of the respondents.

The entire questionnaire was divided into **ten sections**:

The first section is titled *Respondent*. This section of the survey focuses on the respondent's gender, age, education, field of profession, type of current housing, and the size of the municipality in which they live.

The second section named *Private greenery* contains three questions. The first and second questions are focused on the respondent's opinion on the issue of whether

felling a fruit and a non-fruit tree with a trunk diameter greater than 25 cm should be the decision of the owner or the society's decision made through the competent authority. The third question is focused on the opinion on the occurrence of private greenery.

The third section is named *Public greenery*. This section also contains three questions. In the first two questions, the respondents assessed the occurrence of public greenery and the age of public trees in public green spaces. The third question asks for an opinion on whether old and endangering trees in public green spaces should be cut down immediately, secured against falling, or left to their natural evolution.

The fourth section titled *Agriculture* contains four questions. The first question is focused on the respondent's opinion on the intensity of use of agricultural arable land. The second question of this section is, on the other hand, aimed at the respondent's opinion on the intensity of use of agricultural non-arable lands, i.e. grasslands. The third question is aimed at the respondent's perception of the composition of agricultural crops. Specifically, whether the composition of these crops is perceived as economically motivated, as a compromise between economy and nature, as sustainable access, or as poorly economically motivated. The fourth and last question of this section is focused on the opinion on whether the current form of agriculture is beneficial or harmful to society.

The fifth section is named *Forestry*. The first question is focused on the respondent's opinion on the intensity of use of forest areas. The second question is aimed at the respondent's perception of the composition of tree species. Specifically, whether the composition of tree species is perceived as too much coniferous, deciduous, or as a reasonable compromise. The third question asked respondents whether they perceive Czech forests as economically exploited too much or too little, whether Czech forests appear to them affected by man or as in its natural condition. The fourth question is focused on the opinion on whether the current form of forestry is beneficial or harmful to society.

The sixth section of the questionnaire is called *Hunting*. It contains three questions. The first question is focused on the respondent's opinion on hunting. Specifically, whether the respondents perceive hunting as the management of natural resources,

sensible utilization of natural resources (game), or as a private hobby consistent or inconsistent with the interests of nature and the general public. Second question asks whether respondents perceive the current form of hunting as an activity which is beneficial or harmful to society. The final question is aimed at the respondent's opinion on whether hunting should continue in the same form as it is, be more beneficial to nature and society, or be banned.

The seventh section of the questionnaire named *Fishing* contains three questions as well. As in the previous section, the first question is focused on the respondent's opinion on the perception of fishing. Fishing may be perceived as the management of natural resources, sensible utilization of natural resources (fish), or as a private hobby consistent or inconsistent with the interests of nature and the general public. The second question asks whether respondents perceive the current form of fishing as an activity beneficial or harmful to society. The last question is also aimed at the respondent's opinion on whether fishing should continue in the same form as it is, be more beneficial to nature and society, or be banned.

The eighth section titled *Protected areas* contains three questions. These three questions ask respondents about their opinion on whether they perceive the total area, the degree of protection of protected areas, and the number of national parks in Czech Republic as unnecessarily high, rather high, proportionate, rather low, or very low.

The ninth section is titled *Support of bioenergy*. This question is focused on the use of wood, rapeseed, maize, solar energy, or wind energy as a source of electric power. Respondents had to express their own opinion on the use and construction of these power plants. The respondents had to choose whether these various sources should be significantly increased, slightly increased, kept in the current condition, slightly reduced, or significantly reduced.

The tenth and last section is named *Stay in the countryside*. This section is aimed at the frequency of the respondent's stay in the countryside, at the form of the respondent's stay in the countryside, and the respondent's preferred landscape for staying in the countryside.

5.4 Synthesis

The synthesis of the research is focused on the evaluation of the data collected in the survey. The individual questionnaires were transferred to a pre-prepared spreadsheet in MS Excel from which the representation of individual responses was filtered out. The next step was to transfer these individual questions to the graphic form of bar charts.

The created charts were transferred to MS Word. These charts were inserted into chapter 6.1 titled *The results of the questionnaires with graphs and commentary*. The individual plots were then complemented by commentary and additional insights. Another step in the synthetic part was the chapter titled *Summary of results* where the research was mainly concerned with the formation of a so-called *Typical male respondent* and *Typical female respondent*, which are profiles that describe the majority representation from each of the questions connected to one fictitious profile.

The next step was to find and describe correlations, i.e. proportionally growing relations between the individual results of the questionnaires, which were found and filtered from the MS Excel spreadsheet. Subsequently, the profile of the *typical male's opinion* and the *typical female's opinion* has been compiled from the most commonly chosen responses for each question.

The last step was to compile *recommendations* for the SMR and individual *players* coming into contact with the environment of the region.

6 Results

6.1 The results of the questionnaires with charts and commentary

6.1.1 Gender

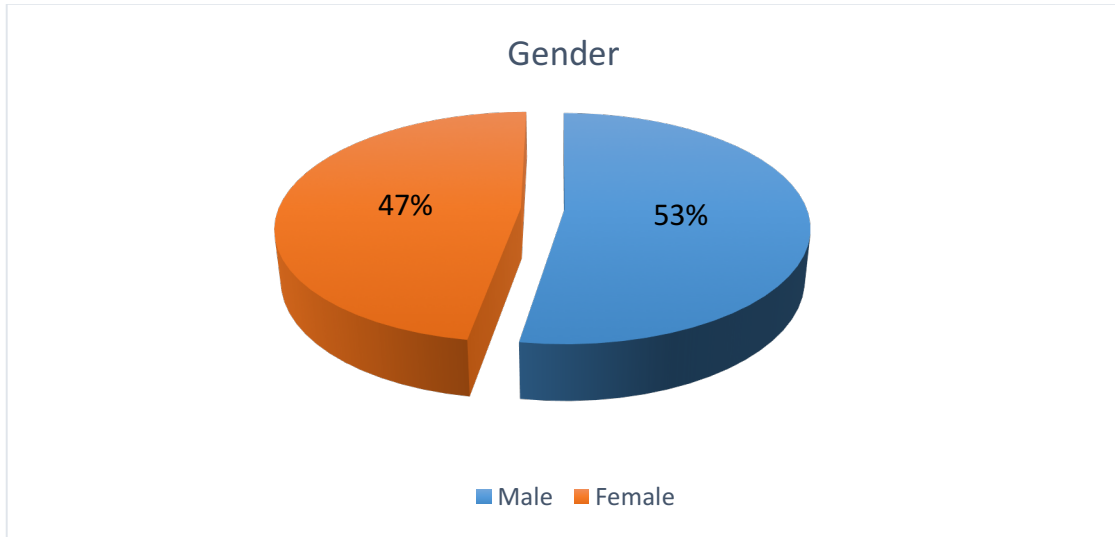


Figure 8: Gender composition of the respondents (Own work).

For the purposes of ensuring an appropriate representative sample, it was necessary to ensure a gender-balanced sample, which has high explanatory value. In the end, this goal was more or less achieved.

Out of the 137 respondents, 72 were men and 65 were women. Out of the total sample, men account for 53 % and women represent 47 %.

This sample is sufficient for the obtaining of gender divided opinion of men and women for the further implementation of this study.

6.1.2 Age

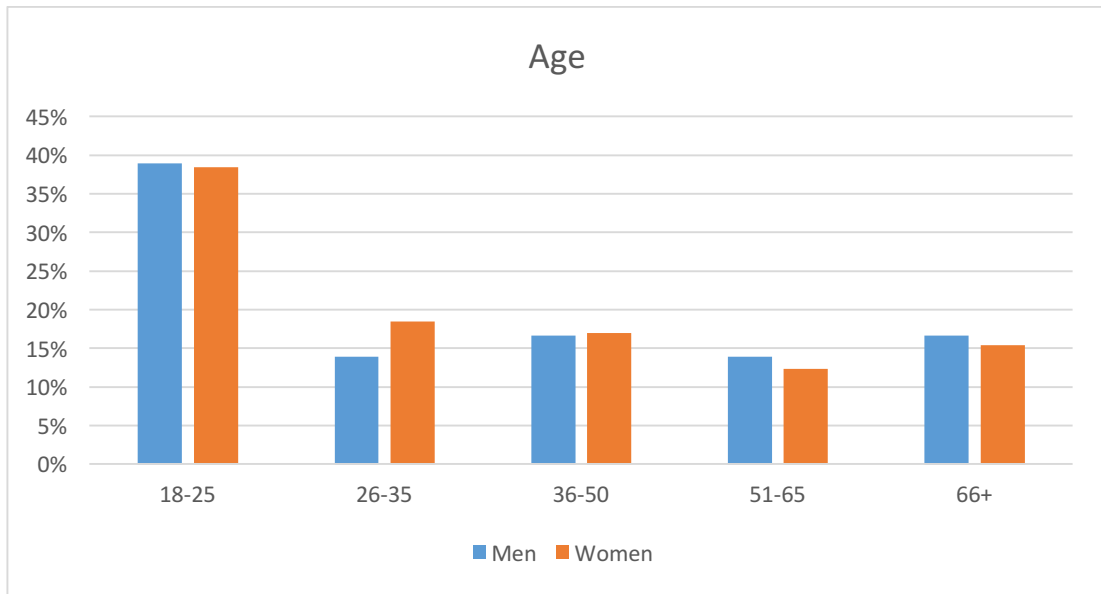


Figure 9: Age composition of the respondents (Own work).

During the field survey, it was unfortunately very difficult to achieve a balanced age structure of the sample. The results show that the highest number of respondents belongs to the age group 18–25 years old. This is primarily due to the fact that this age group is more inclined to filling out questionnaires for the purpose of drawing up studies. 28 men (39 %) and 25 women (38 %) belong into this group of 18 to 26-year-old respondents. The second largest group is the group of 36–50-year-old people. This age was presented by 12 men (17 %) and 11 women (17 %). The third largest group of respondents was in the age range of 26–35 years and respondents aged 66+. The group aged 26–35 years contains 10 men (14 %) and 12 women (18 %). In the case of the group aged 66 years and more, there were 12 men (17 %) and 10 women (15 %). Especially in the case of the group aged 66+ it was very hard to find respondents willing to reply to the questionnaire, therefore suitable respondents had to be found additionally for the purpose of the formation of a representative sample of this age group. The smallest but still representative group that responded in field survey is the group 51–65 years old. This includes 10 men (14 %) and 8 women (15 %).

6.1.3 Education

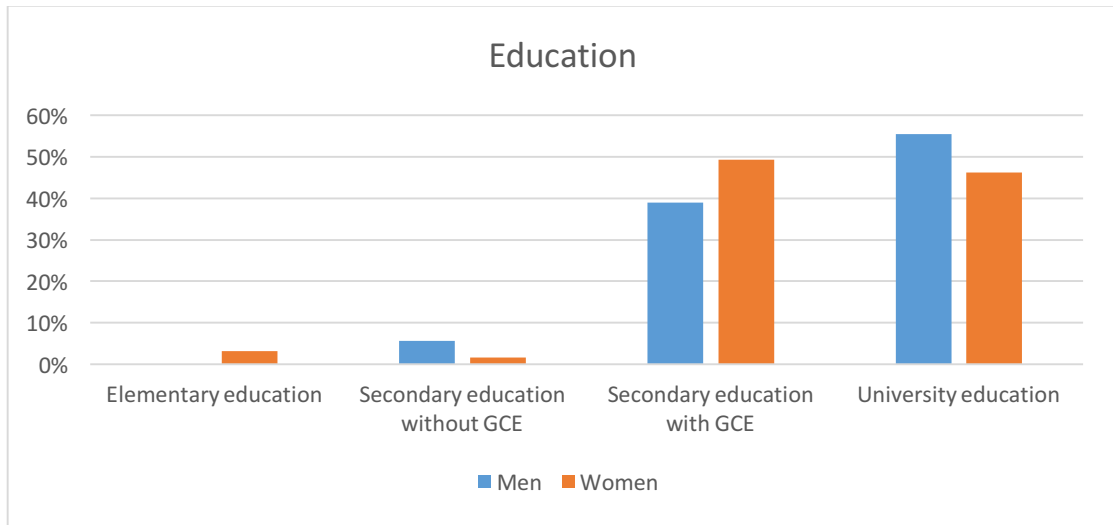


Figure 10: Education of the respondents (Own work).

The smallest group, elementary educated respondents, includes only 2 respondents, specifically 2 women. These 2 women constitute 3 % of the female respondents. For the purpose of high information value of this study the low number of respondents with elementary education is partly an advantage because it is generally known that these respondents do not possess the necessary knowledge and general overview. The second smallest group of respondents is the group of people who attained secondary education without a GCE. This group contains 4 men (6 %) and 1 woman (2 %).

In the case of secondary educated respondents with a GCE, this group contains 28 men (39 %) and 32 women (49 %). In the case of women with this level of achieved education, this group of women is the largest. Conversely, the largest share of male respondents has achieved university education. This group of men who achieved this level of education contains 40 men (56 %). Women were university educated in 30 cases (46 %).

It is likely that the prevalence of university education and secondary education with GCE is partly caused by the larger number of respondents in the 18–25 age group, therefore these students are more willing to help other students in compiling studies.

6.1.4 Size of the municipality of residence

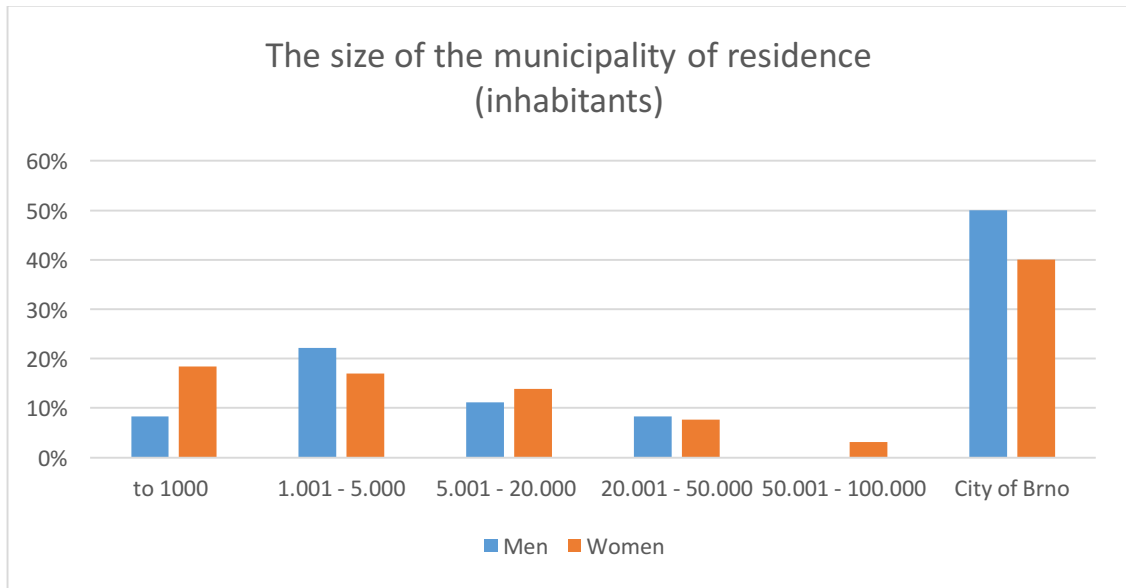


Figure 11: The size of the municipality of residence (Own work).

A municipality of residence with less than a 1000 inhabitants was reported by 6 men (8 %) and 12 women (18 %). Municipalities of 1 000 – 5 000 inhabitants are the residence of 16 men (22 %) and 11 women (17 %). This response was the second most frequent in both the cases of men and women. 8 men (11 %) and 9 women (14 %) live in municipalities of 5 000 – 20 000 inhabitants. Municipalities of 20 001 – 50 000 inhabitants are occupied by 6 men (8 %) and 5 women (8 %). Only 2 women (3 %) out of the total number of respondents live in a city of 50 001 – 100 000 inhabitants.

The most frequent answer to the municipality of residence was the city of Brno. In this municipality live 36 men (50%) and 26 women (40%).

6.1.5 Type of living



Figure 12: Type of living of the respondents (Own work).

When querying the type of housing, the first and the most frequent choice of the respondents was the answer *brick house*. The majority of men live in a brick house, 44 men (61 %) in total. 32 women (49 %) live in a brick house as well.

As you can see, wooden structures do not belong to popular housing types. No men live in them and only 3 women (5 %) do.

10 men (14 %) and 18 women (28 %) live in a flat in a panel building. 16 men (22 %) and 11 women (17 %) live in a flat in a brick building.

The answer other type of living was marked by 2 men (3 %) and 1 woman (2 %).

The result shows that people living outside of the city of Brno and some of the people living in the city of Brno live in a brick detached house. Furthermore, it is clear that the majority of people who chose the *Flat in a panel building* or *Flat in a brick building* are living in the city of Brno, because this type of living is more common in this area.

6.1.6 Felling of private non-fruit trees with a trunk diameter of more than 25 cm

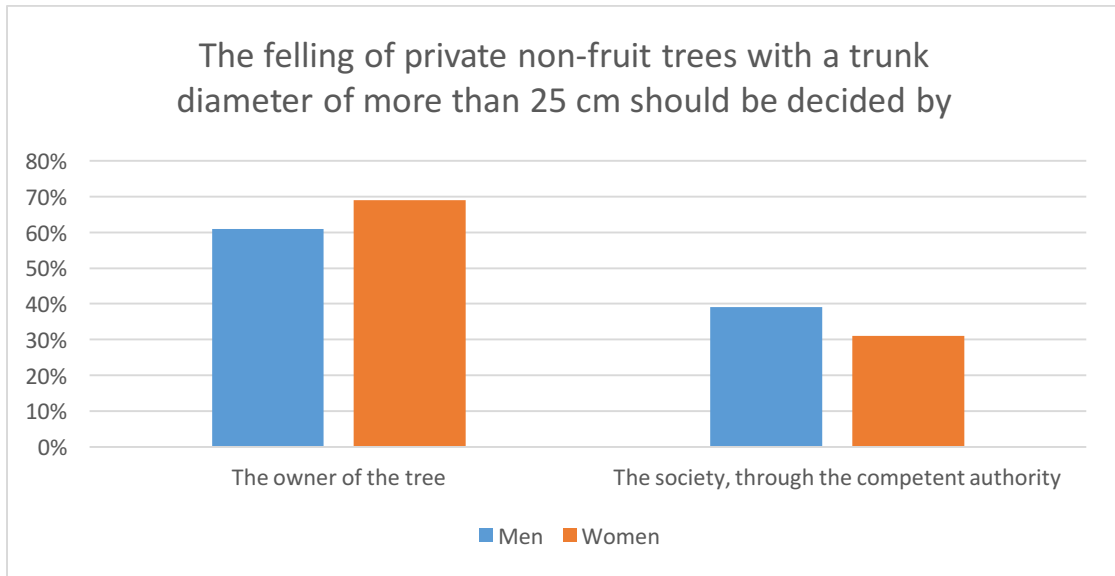


Figure 13: The felling of private non-fruit trees with a trunk diameter of more than 25 cm (Own work).

According to the public survey, the owner of the tree should decide about the felling of private non-fruit trees with a trunk diameter of more than 25 cm. In this case the answer was chosen by 44 men (61 %) and 45 women (69 %).

Conversely, 28 men (39 %) and 20 women (31 %) think that the society should decide about the felling of this type of trees through the competent authority.

It is logical that in the case of a decision related to the greenery occurring on private land the decision should be made by its owner, but in many cases there are a lot of private trees near busy areas with a high incidence of people. If the owner of the tree does not care about the condition of the tree, there is a great risk that this tree will hurt someone.

The best solution may be mandatory inspection of the tree at regular intervals.

6.1.7 Felling of private fruit trees with a trunk diameter of more than 25 cm

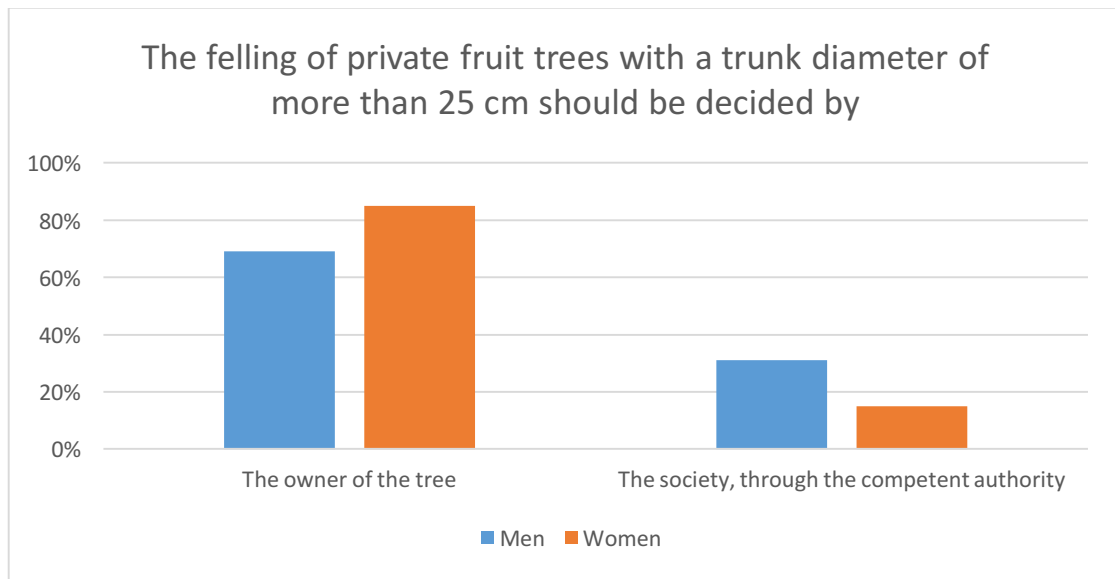


Figure 14: The felling of private fruit trees with a trunk diameter of more than 25 cm (Own work).

In the case of felling of private fruit trees with a trunk diameter of more than 25 cm, the majority of respondents agree with the statement that the felling of the tree should be decided by the owner of the tree. This answer was marked by 50 men (69 %) and 55 women (85 %). According to 22 men (31 %) and 10 women (15 %), the felling of this type of trees should be decided by the society through the competent authority. This group of people is formed mainly by those who live in any type of a flat or do not have any place to own a tree.

The recommendation may be the same as in the case of non-fruit trees, i.e. mandatory inspection of the tree at regular intervals.

In this chart and also in the previous chart we can see the fact that the majority of people who live in a detached house (55 % of respondents), whether in the country or in a town, want to be able to influence actions related to greenery on their private land. Of course it is not a rule and not all of these people agree with this statement. The rest of the people who live in any type of a flat have a mixed opinion.

6.1.8 Occurrence of private green spaces

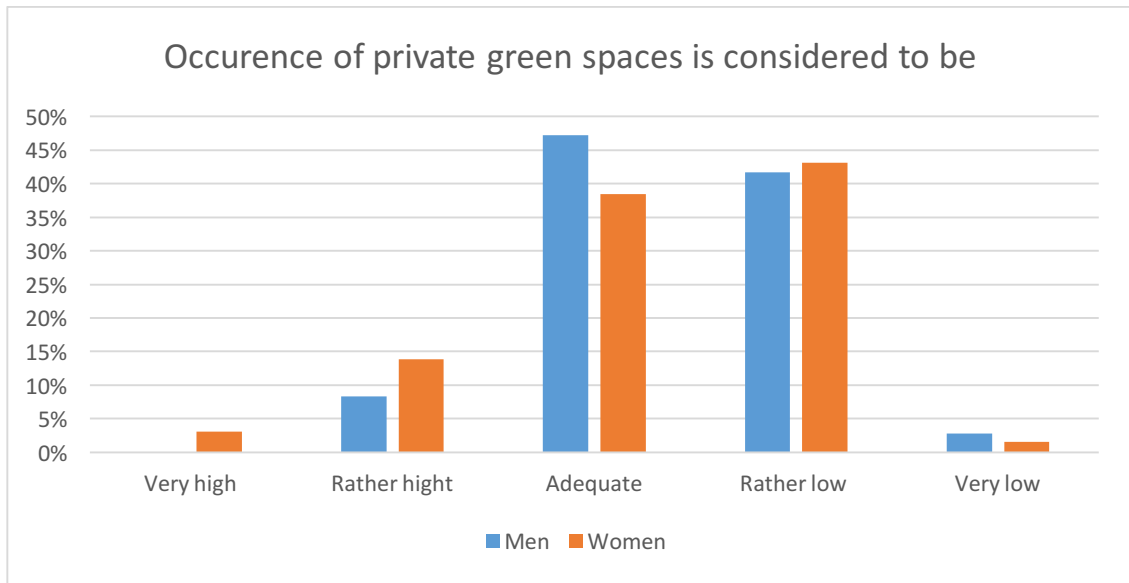


Figure 15: Occurrence of private green spaces (Own work).

Only 2 women (3 %) consider the occurrence of private green spaces to be very high.

The occurrence of private green spaces is perceived as rather high by 6 men (8 %) and 9 women (14 %). Most of the men think that the current occurrence of private green spaces is adequate; this answer was marked by 34 men (47 %). The occurrence of private green spaces is considered *adequate* by 25 women (38 %).

A rather low occurrence of private green spaces is perceived by the largest share of the women – 28 women (43%) think that the occurrence of this type of green spaces is rather low. The occurrence of private green spaces is perceived as very low by only 2 men (3 %) and 1 woman (2 %).

The frequency of the opinion *rather low* may be influenced by the number of people living in the housing projects from the Communist era. These people do not come into contact with private green spaces. Moreover, people living in houses won't have the motivation to choose this answer and they would rather choose the option *adequate*, because people living in family houses come into contact with their private green spaces almost every day.

6.1.9 Occurrence of public green spaces

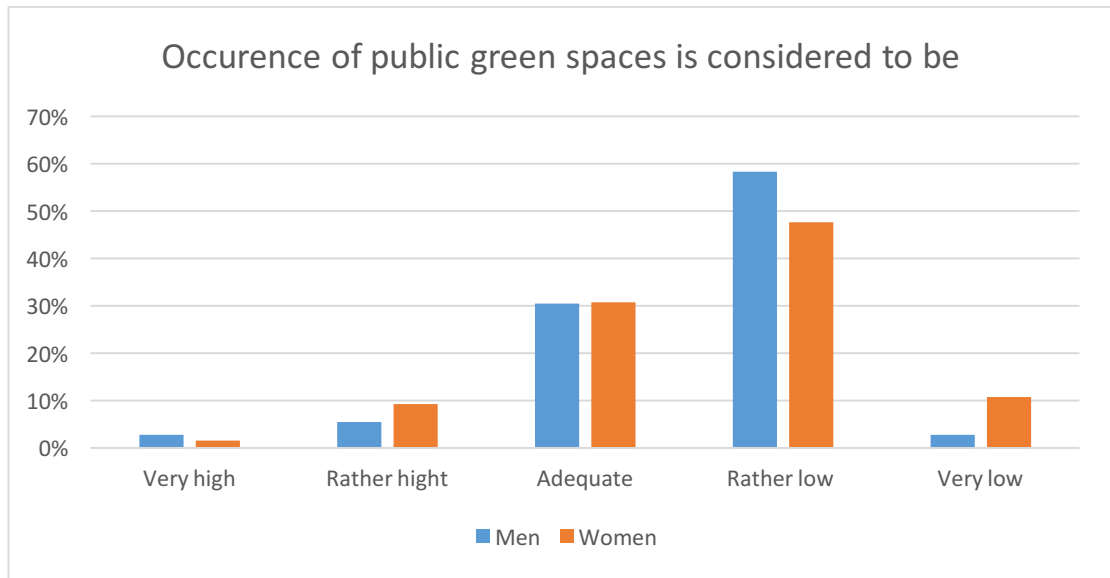


Figure 16: Occurrence of public green spaces (Own work).

Very high occurrence of public green spaces is only perceived by 2 men (3 %) and 1 woman (2 %). Furthermore, rather high occurrence was mentioned by 4 men (6 %) and 6 women (9 %).

The occurrence of public green spaces was considered adequate by 22 men (31 %) and 20 women (31%), which is not as high a number as it should be.

The answer *rather low occurrence* of public green spaces was marked by the majority of men. It was marked by 42 men (58 %) and 31 women (48 %).

The occurrence of this type of green spaces is considered very low by 2 men (3 %) and 7 women (11 %).

It is clear that for women the incidence of these areas is more important than for men, because the rest of the female respondents who did not vote for the option *Rather low* voted for the option *Very low*, which suggests that women spend time in this environment more often, so they are more fixed on it. The result of this question should be a warning that the quantity of public green spaces is quite insufficient and this deficiency should be remedied, because the amount of negative responses is quite high.

6.1.10 Age of trees in public green spaces

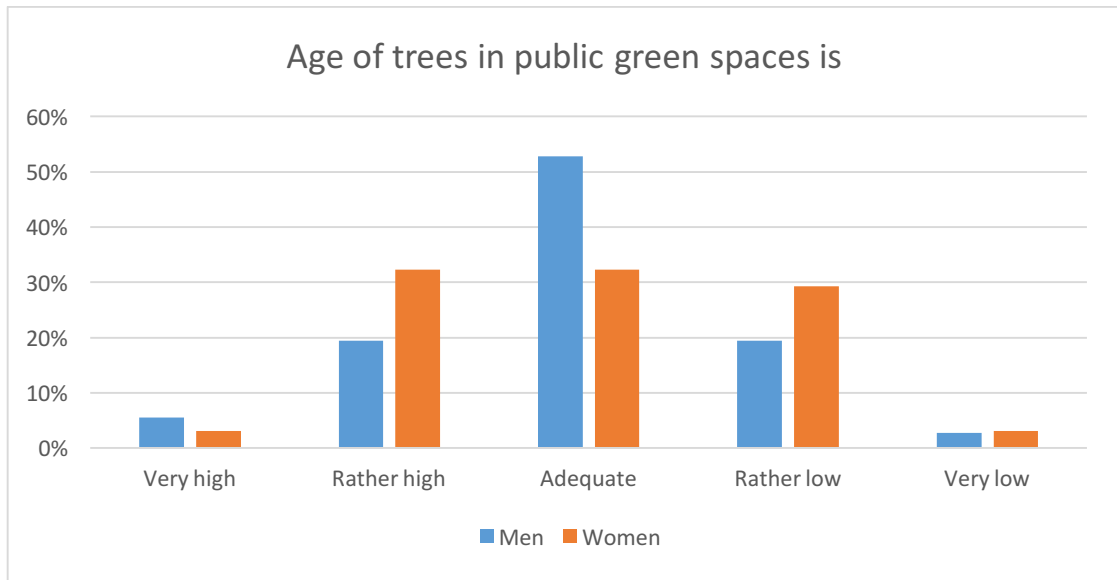


Figure 17: Age of trees in public greenery (Own work).

The age of the public green space trees is perceived as very high by 4 men (6 %) and 2 women (3 %).

The age of this type of trees is considered rather high by 14 men (19 %) and 21 women (32 %).

The majority of men voted for the option *Adequate*. This answer was chosen by 38 men (53 %) and 21 women (32 %).

A rather low age of public green trees was mentioned by 14 men (19 %) and 19 women (29 %).

The age of this type of trees is perceived as very low by 2 men (3 %) and 2 women (3 %).

The graph shows the result that men are tackling this issue more than women, because as it is shown in the graph, women do not have too strong an opinion on this issue.

6.1.11 Treatment of superannuated trees

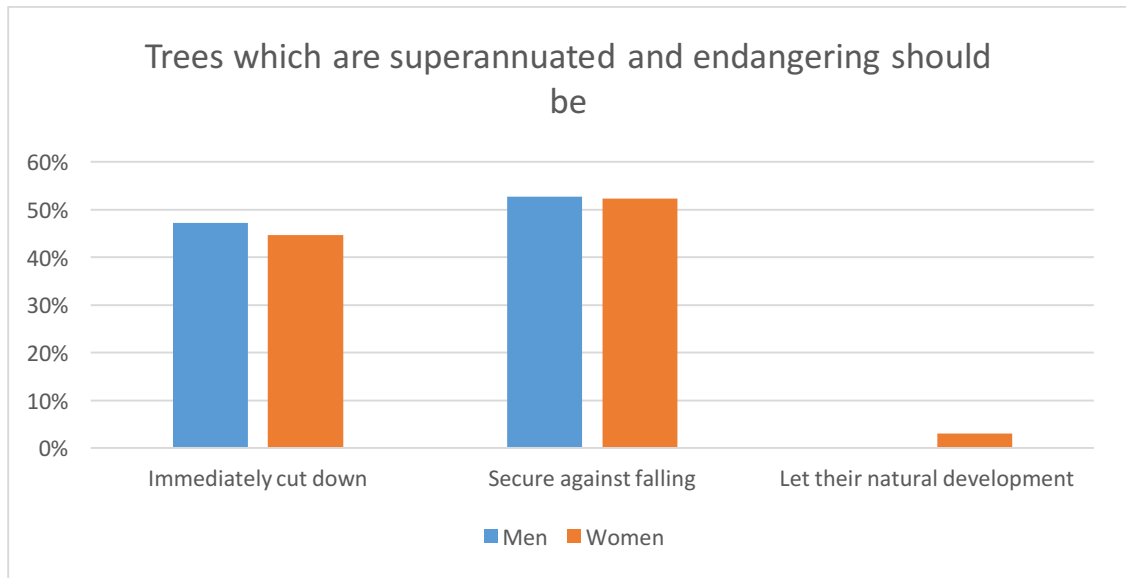


Figure 18: Treatment of superannuated trees (Own work).

The issue of dealing with trees endangering the public is one of the topics discussed for a long time.

34 men (47 %) and 29 women (45 %) voted for the option *Immediately cut down*.

Securing trees against falling is an acceptable solution for the majority of both men and women. This option was marked by 38 men (53 %) and 34 women (52 %).

The last option was the least popular. Only 2 women (3 %) think that leaving the trees to their natural development is the best way of treatment with this type of trees.

The quantity of people who chose *Secure against falling* shows that people prefer more of public greenery, even if it is in poor condition, because they fear that the place will be left without a newly planted tree for a long time. More people prefer securing it rather than felling it.

6.1.12 Use of agricultural arable land (fields)

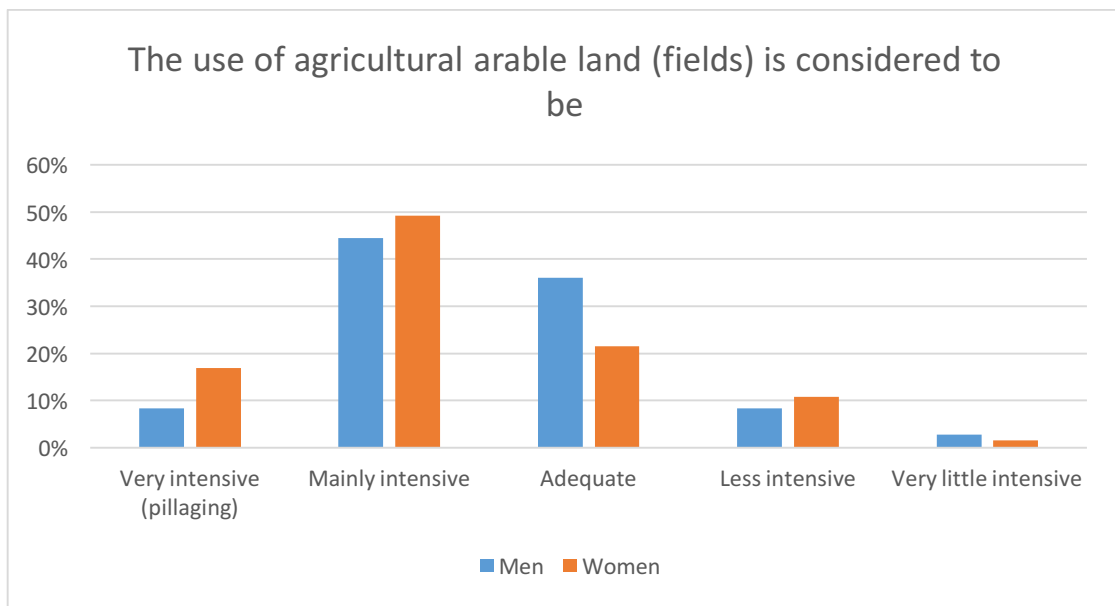


Figure 19: Use of agricultural arable land (fields) (Own work).

The occurrence of arable land in the territory of the Czech Republic is very common. Arable land is an integral part of the landscape. Therefore, the way these areas are treated is very important.

The option *Very intensive* use of fields (so-called *plundering*) was marked by 6 men (8 %) and 11 women (17 %). The option *Mainly intensive* was the most popular. This answer was chosen by 32 men (44 %) and 32 women (49 %). It should be mentioned that women are more critical than men in these first two cases of *plundering* and *mainly intensive use* of arable land. The use of arable land is perceived as *Adequate* by 26 men (36 %) and 14 women (22 %). In this case this suggests that men are more tolerant to current use of arable land than women. The option *Less intensive* was chosen by 6 men (8 %) and 7 women (11 %), and the last option *Very little intensive* was marked by 2 men (3 %) and 1 woman (2 %) only.

Generally, the respondents are slightly critical to the current use of agricultural arable land. It can serve as a recommendation to farmers to improve the treatment of this type of land or to enhance public awareness of this type of agriculture.

6.1.13 Use of agricultural non-arable land (grasslands)

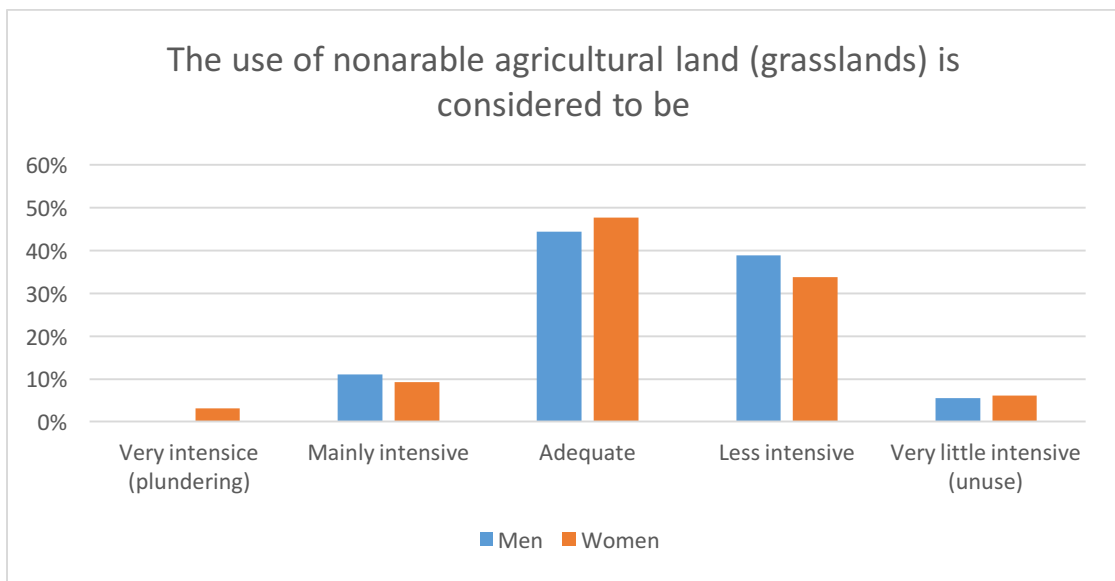


Figure 20: Use of agricultural non-arable land (grasslands) (Own work).

Only 2 women (3 %) perceive the use of grasslands as plundering of these areas.

The use of grasslands is considered *Mainly intensive* by 8 men (11 %) and 6 women (9 %).

The most frequent answer on this question was the option *Adequate*, which was chosen by 32 men (44 %) and 31 women (48 %).

The second most common response was *Less intensive use* of green lands, which was chosen by 28 men (39 %) and 22 women (34 %). This may be due to the fact that most people do not know what these areas are used for and what their benefits are. These people, however, do not know that grasslands serve as a habitat for plants, animals, and it is the environment which serves as a space for other activities such as beekeeping and others.

Usage of green lands is perceived as *very little intensive* by 4 men (6 %) and 4 women (6 %). This group of people probably has no information about possible current usage of these areas.

6.1.14 Composition of agricultural crops

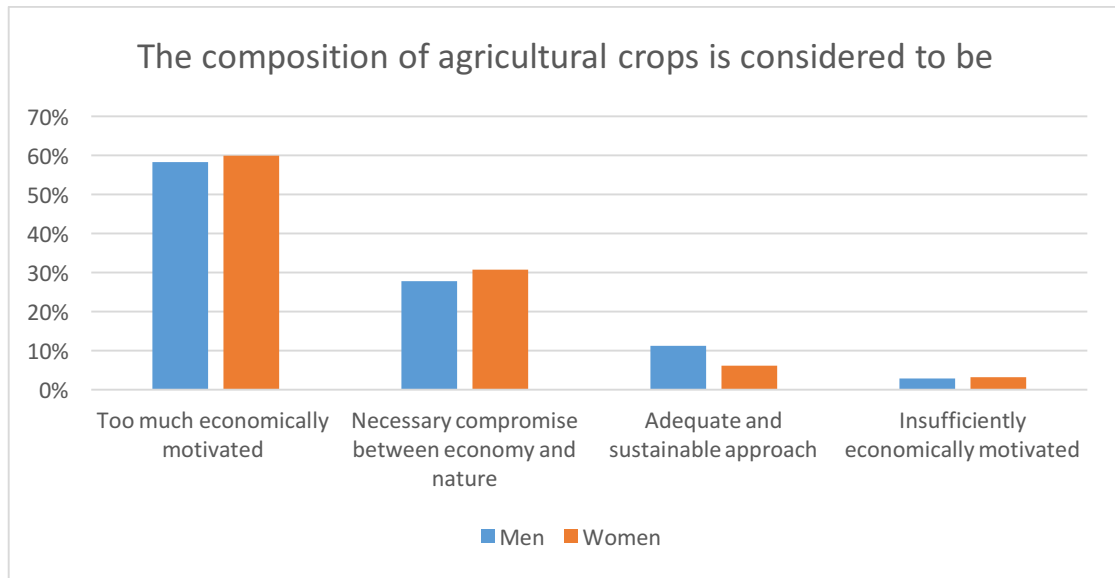


Figure 21: The composition of agricultural crops (Own work).

Throughout the Czech Republic the composition of agricultural crops is a long discussed topic. Some people hold the opinion that the cultivation of certain agricultural crops only brings benefits to the owner of the field, but it does not bring the public any benefit. This fact can be seen in *figure 21*.

The majority of both men and women think that the composition of agricultural crops in the SMR is too economically motivated. 42 men (58 %) and 39 women (60 %) belong to this group of respondents.

The second largest group that is appropriate to be noted is the group of 20 male respondents (28 %) and 20 female respondents (31 %). This whole group of respondents has the opinion that the composition of agricultural crops is a necessary compromise between economy and nature. Despite that it is only about half the number of respondents compared to the first option.

The option *Adequate and sustainable approach* was chosen by 8 men (11 %) and 4 women (6 %) and the last possible answer *Insufficiently economically motivated* was marked only by 2 men (3 %) and 2 women (3 %).

6.1.15 Activity of farmers

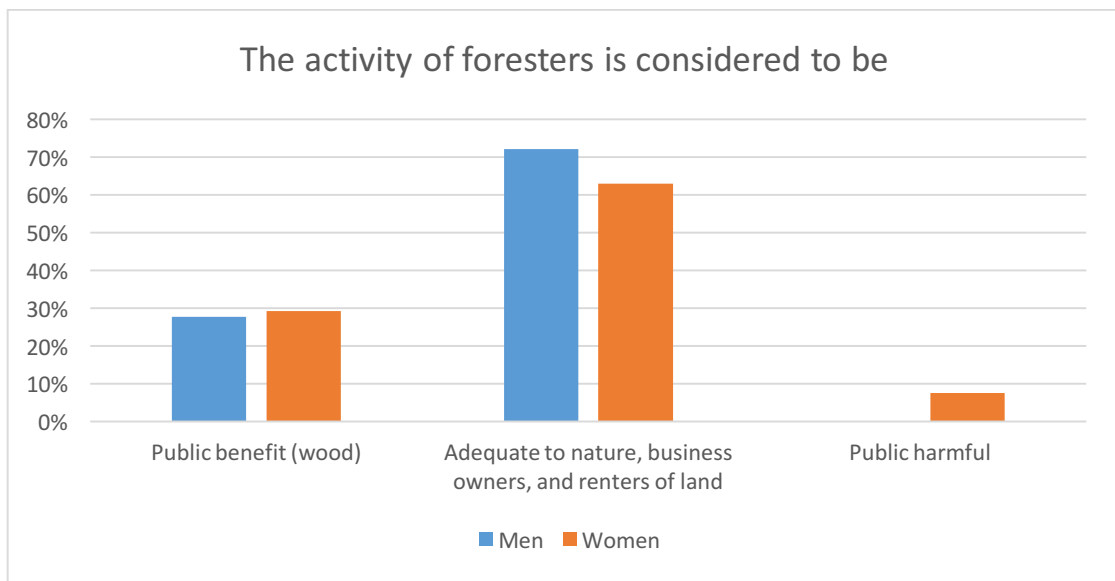


Figure 22: The activity of farmers (Own work).

The fate of farmers is to provide food security for the population of the Czech Republic, and in the case of overproduction to ensure food export abroad. These export activities have a positive impact on the domestic economy. Often the opinion appears that agricultural activities are too economically motivated, therefore these activities are not as beneficial to the public as they should be (as in *figure 21*). It can be seen that the most frequent answers of respondents in *questions no. 14* and *no. 15* are contradictory.

Although the majority of respondents perceive the composition of agricultural crops as too economically motivated, the majority of respondents marked the first option which represents that the activity of farmers is beneficial to society as well. This answer was chosen by 44 men (61 %) and by 37 women (57 %).

The activity of farmers is perceived as *adequate to nature, business owners, and lenders of land* by 24 men (33 %) and 26 women (40 %). This response should be ideally the most frequent but actually it is not.

The activities of farmers are considered to be harmful to society by only 4 men (6 %) and 2 women (3 %).

6.1.16 Use of forest land as a source of raw wood

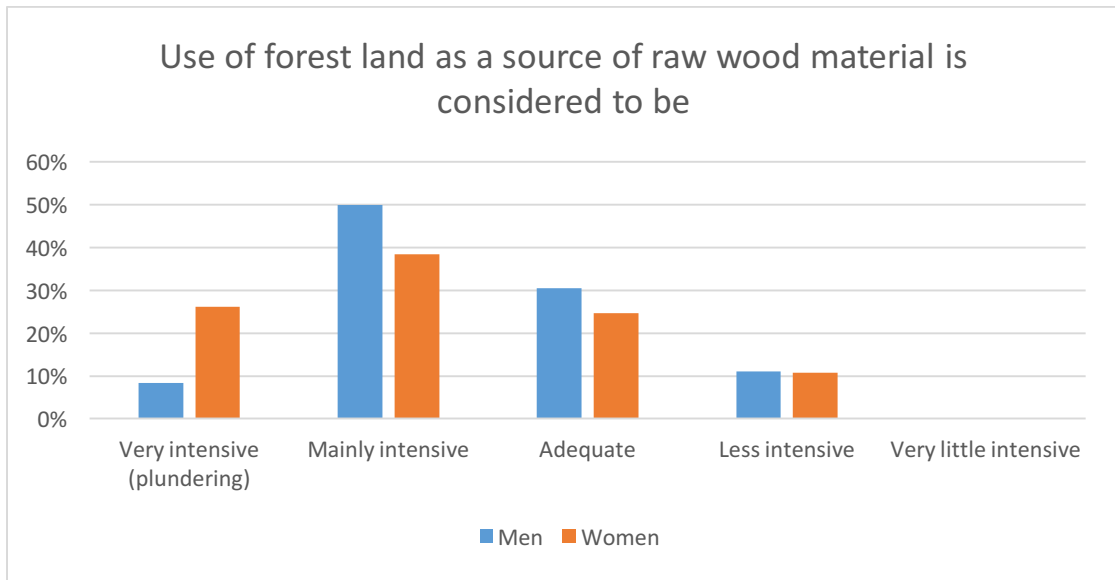


Figure 23: Use of forest lands as a source of raw wood (Own work).

Without wood as a raw material contemporary society almost couldn't function. This material is used for the manufacturing of furniture, heating in stoves, and many other uses. However, the opinion on the harvesting of timber as raw material can be varied.

Only a few men are convinced about forests being *plundered*, specifically 6 men (8 %). Women are more critical in this case. 17 women (26 %) think that current forestry is very intensive.

The majority of men perceive current forestry as mainly intensive, specifically 36 men (50 %), as well as 25 women (38 %).

22 men (31 %) and 16 women (25 %) think that today's forestry is *adequate*, which is not as many as it should be.

The option *Less intensive* was chosen by 8 men (11 %) and 7 women (11 %).

The last answer, *Very little intensive*, was not selected by any respondent.

From the result we can see that women are more critical to the management of forests again. Nevertheless, this phenomenon can be caused by a lack of knowledge of the need for the use of wood in different industries.

6.1.17 Composition of tree species compared to the ideal state

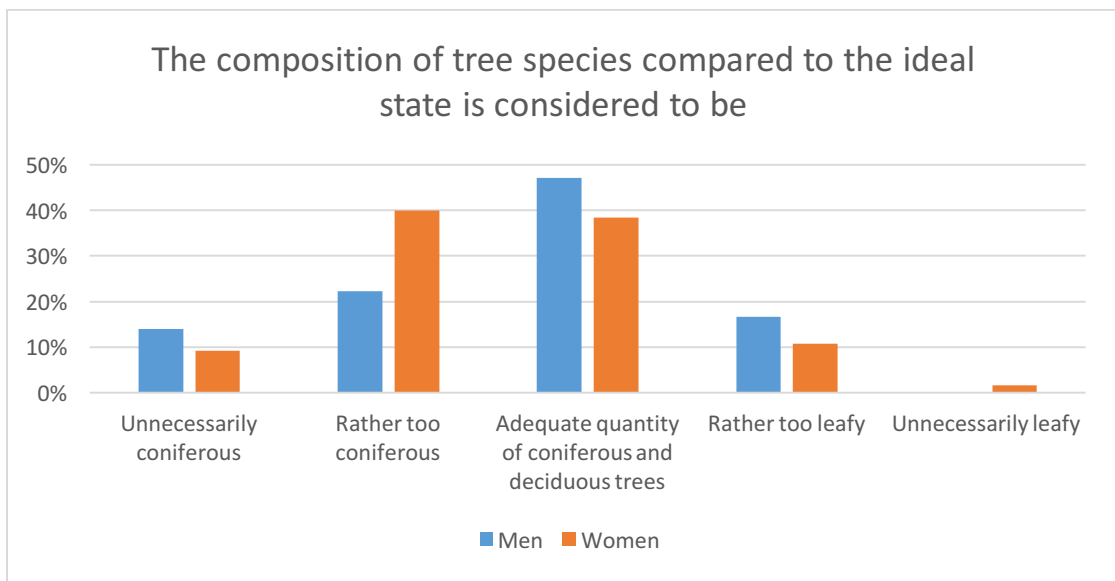


Figure 24: Composition of tree species compared to the ideal state (Own work).

All the tree species are represented in the Czech Republic in all parts of the country. But how is the composition of tree species perceived by the general public of the South Moravian Region?

The composition of tree species is perceived as unnecessarily coniferous by 10 men (14 %) and 6 women (9 %).

In the case of the option *Rather too coniferous*, this choice was checked by 16 men (22 %) and 26 women (40 %). Female respondents chose this answer the most frequently.

Most of the men voted for the option which represents an adequate ratio of coniferous and deciduous trees. This answer was picked by 34 men (47 %) and 25 women (38 %).

The composition of tree species within the SMR is considered as rather too leafy by 12 men (17 %) and 7 women (11 %).

The last answer, *Unnecessarily leafy*, was only picked by 1 woman (2 %).

6.1.18 Exploitation of Czech forests

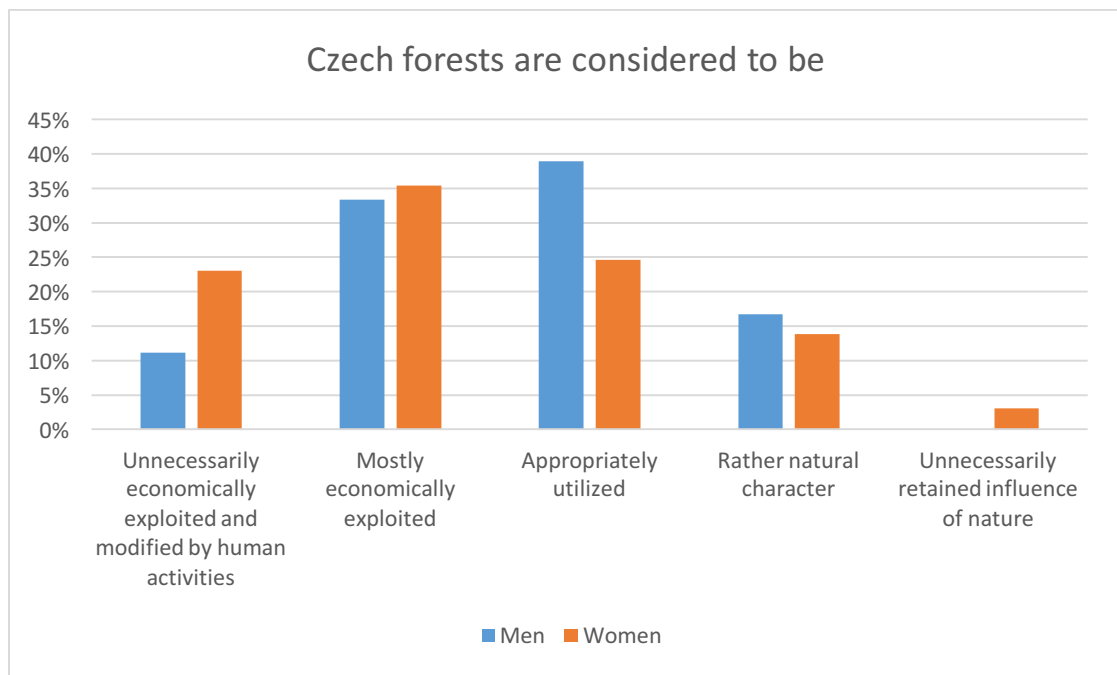


Figure 25: Exploitation of Czech forests (Own work).

Forests are perceived by 8 men (11 %) and 15 women (23 %) as areas unnecessarily economically exploited and modified by human activities.

The second answer, *Mostly economically exploited*, was picked by 24 men (33 %) and 23 women (35 %). This second option is the most frequent answer among the female respondents.

According to 28 men (39 %) and 16 women (25 %), Czech forests are utilized appropriately.

Czech forests are considered as rather natural in their character by 12 men (17 %) and 9 women (14 %).

The last option was *Unnecessarily retained influence of nature*, which was chosen by 2 women (3 %) only.

6.1.19 Activities of foresters

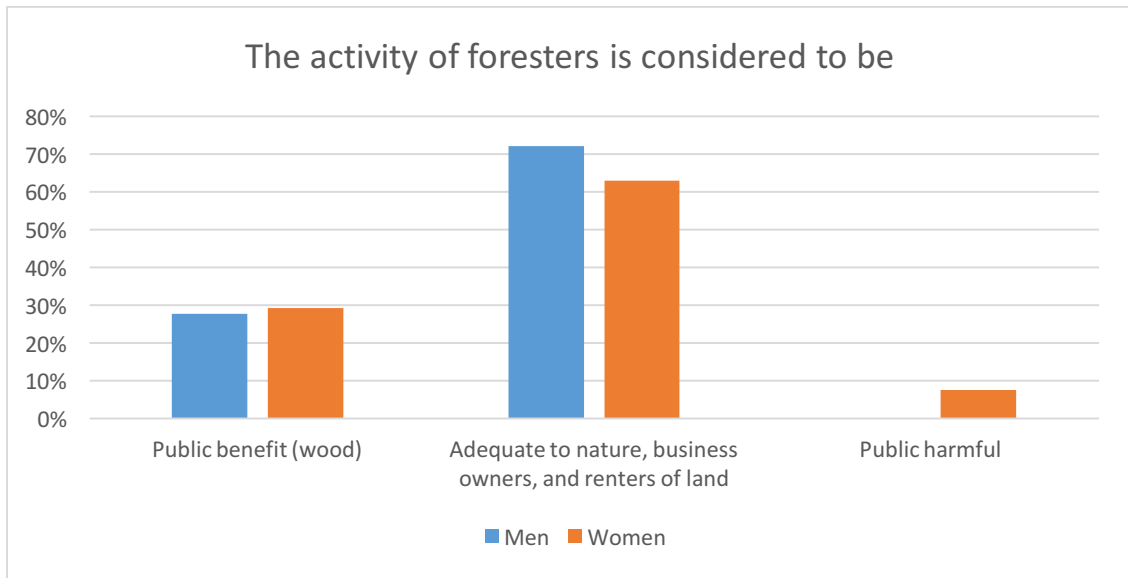


Figure 26: The activity of foresters (Own work).

Foresters' activities are considered to be activities beneficial to the public – especially wood harvesting – by 20 men (28 %) and 19 women (29 %).

The majority of both men and women agree with the statement that foresters' activities are *adequate to nature, business owners, and renters of land*. This option was checked by 52 men (72 %) and 41 women (63 %).

According to 5 women (8 %) only, the activities of foresters are *harmful to the public*.

This results shows that the majority of respondents are satisfied with the current activities of foresters. It is positive that the majority is aware of the significance and the importance of this sub-sector of the primary sector.

6.1.20 Activities of hunters

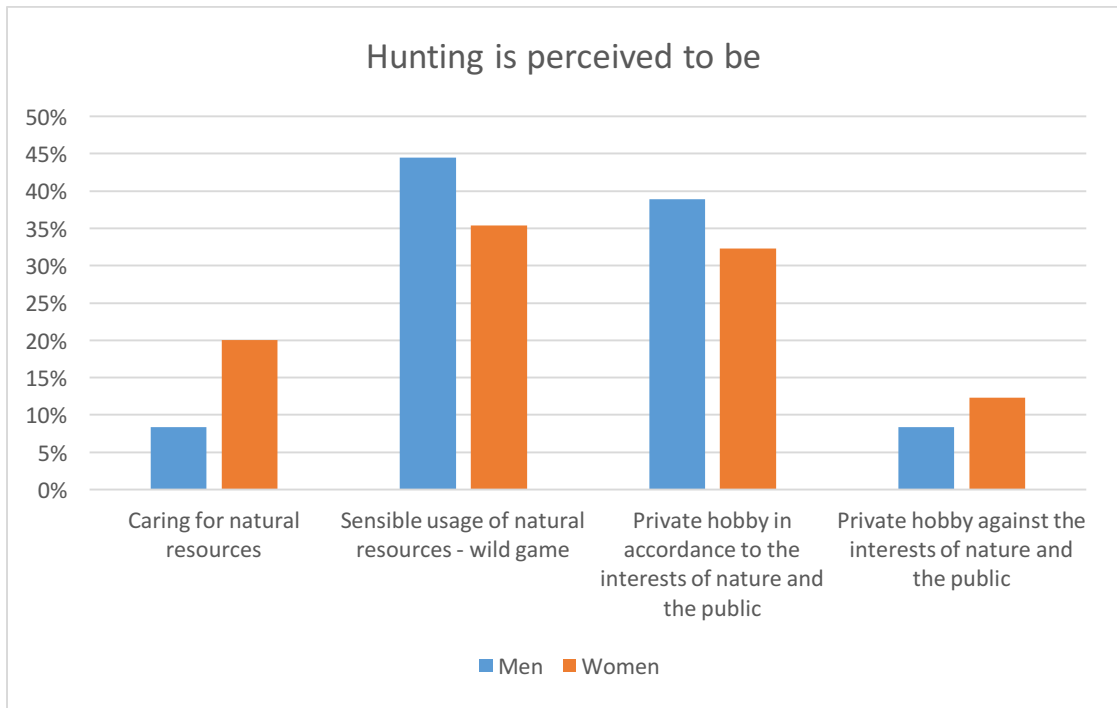


Figure 27: The activities of hunters (Own work).

The activities of hunters are considered by 6 men (8 %) and 13 women (20 %) as caring for natural resources.

According to most men and women, hunting is the sensible use of natural resources (in the sense of caring for animals and their planned breeding). This choice was picked by 32 men (44 %) and 23 women (35 %).

The third option, *Private hobby in accordance to the interests of nature and the public*, was a little less popular. This answer was chosen by 28 men (39 %) and 21 women (32 %).

Hunting is perceived as a private hobby against the interests of nature and the public by 6 male respondents (8 %) and 8 female respondents (12 %).

Generally, considering hunting as a private hobby is not probably as positive as it should be. In this case it depends on the true opinion of the respondent – if the answer is meant in a positive way or in a negative way.

6.1.21 Current form of hunting

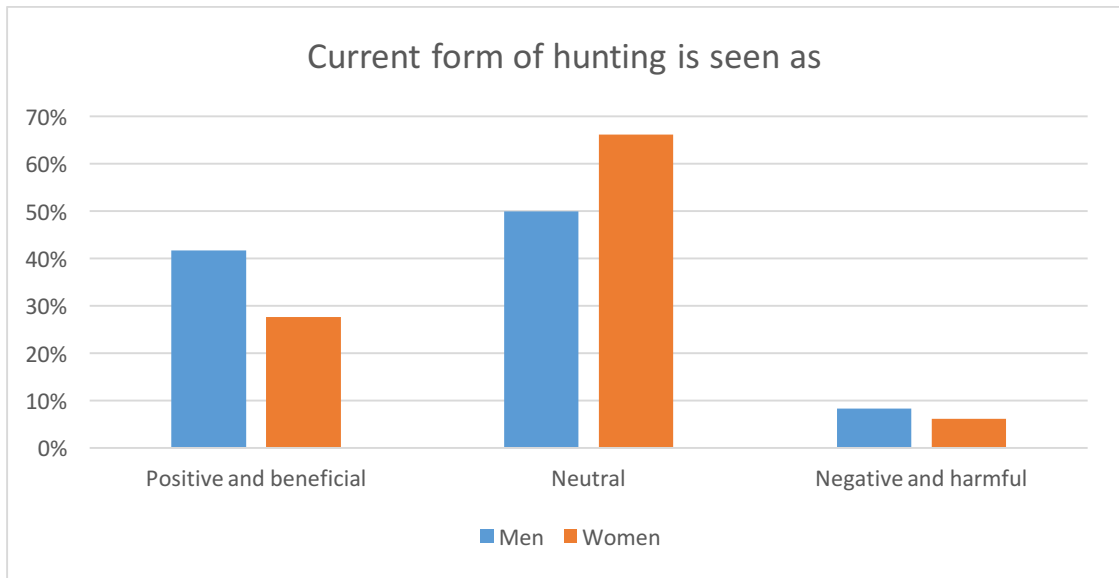


Figure 28: Current form of hunting (Own work).

Hunting is one of the activities of the primary sector which is widely known, but many people do not know what exactly this profession entails.

Hunting is perceived in a positive and beneficial way by 30 men (42 %) and 18 women (28 %).

The majority of both male and female respondents chose the option which means that the current form of hunting is considered as neutral. This option was chosen by 36 male respondents (50 %) and 43 female respondents (66 %).

Hunting is perceived as a negative and harmful activity by only 6 men (8 %) and 4 women (6 %), which is a quite positive piece of information.

The results from this question are quite positive because hunting is generally referred to as a harmful activity done only as a hobby. The results also show that the male part of the respondents perceives hunting a little more positively than women.

6.1.22 Hunting as a hobby

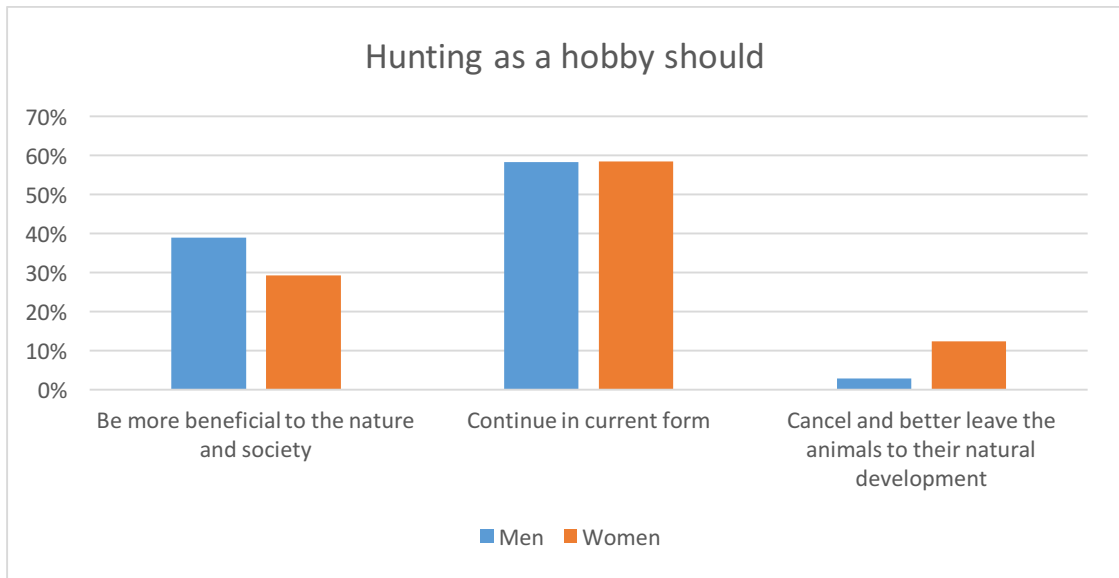


Figure 29: Hunting as a hobby (Own work).

This question should observe the opinion of the respondents on the future development of hunting activities as hobby.

The first choice, which claims that hunting as a hobby should be more beneficial to nature and society, was chosen by 28 men (39 %) and 19 women (29 %). Anyway, this result is not meant in a negative way in the majority of cases because it is true that there is always room for improvement.

The majority of both men and women, however, perceive the current form as suitable and they prefer to continue in the current form. Specifically, this option was picked by 42 men (58 %) and 38 women (58 %). This result shows that hunting as a hobby is generally perceived quite positively.

The last and least preferred answer was to abolish the current form of hunting and leave animals to their natural development. This option was picked by 2 men (3 %) and 8 women (12 %).

In the end, the majority of people living in the SMR are satisfied with the current form of *hunting perceived as a hobby* and it should continue in the current form.

6.1.23 Fishing

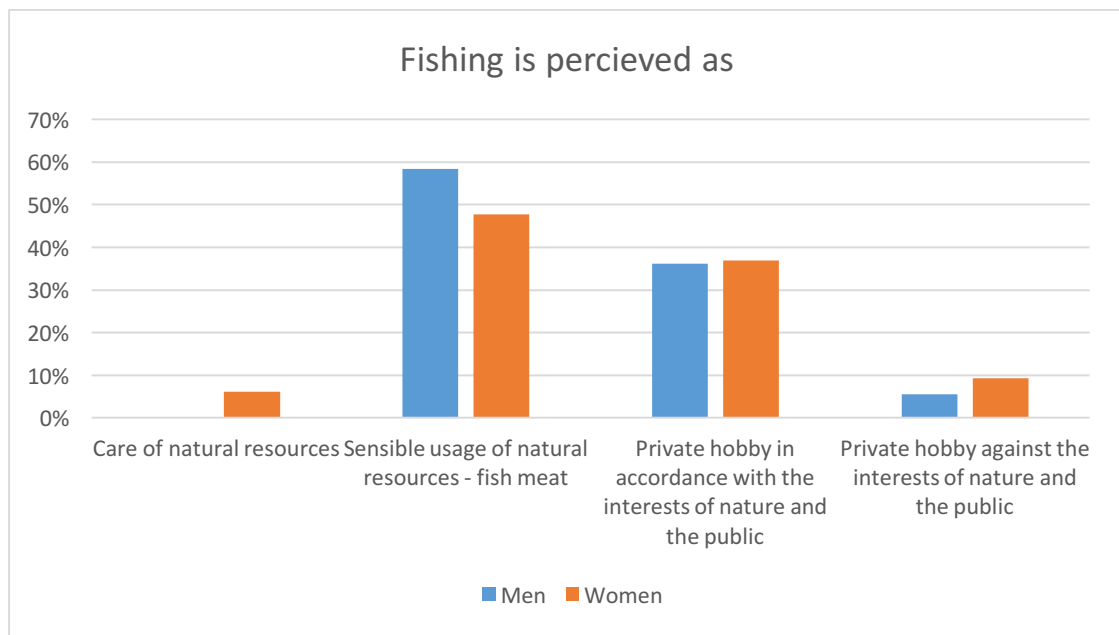


Figure 30: Fishing (Own work).

Fishing is not perceived as *care for natural resources* by any men, but it is by 4 women (6 %). This opinion is quite understandable because fishing is partly perceived as a leisure activity in the Czech Republic.

The option *Sensible usage of natural resources – fish meat* was picked by the majority of men, specifically by 42 men (58 %) and 31 women (48 %).

Fishing is perceived as a private hobby in accordance with the interests of nature and the public by 26 male respondents (36 %) and 24 female respondents (37 %).

Finally, according to 4 men (6 %) and 6 women (9 %), fishing is a private hobby that goes against the interests of nature and the public.

Generally, it can be said that fishing is perceived as a sensible use of natural resources and as a private hobby in accordance with the interests of nature and the public. Especially the option *Private hobby in accordance with the interests of nature and the public* is understandable because fishing is one of the most favorite leisure activities in the Czech Republic, as it was mentioned before.

6.1.24 Current form of fishing

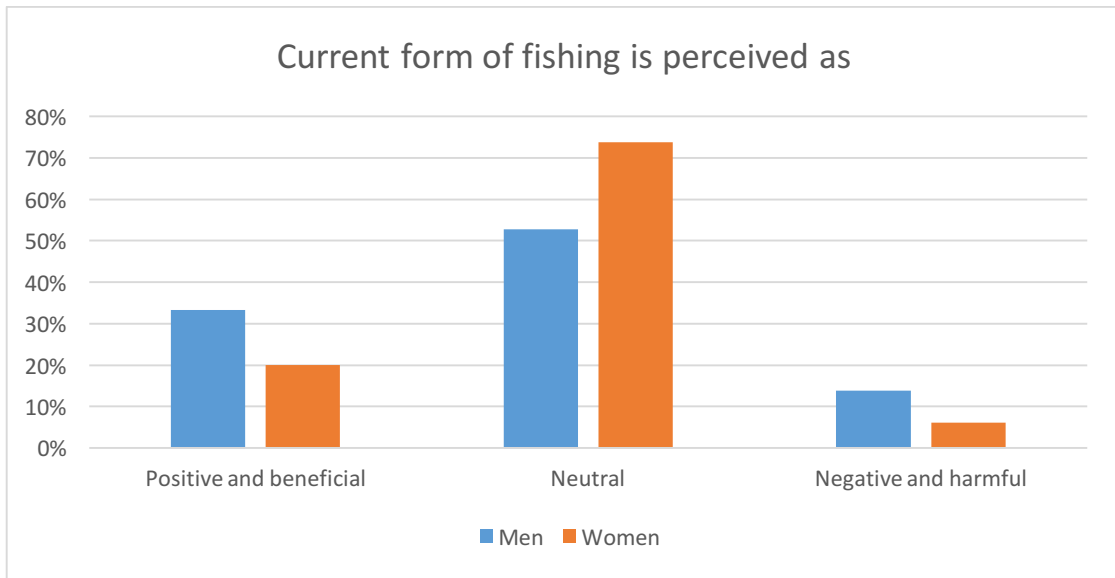


Figure 31: Current form of fishing (Own work).

According to 24 men (33 %) and 13 women (20 %) the current form of fishing is perceived as a positive and beneficial activity in alignment with public interest.

A neutral statement was expressed by the majority of both men and women. In this case, 38 male respondents (53 %) and 48 female respondents (74 %) in total voted for the option *Neutral*.

According to 10 men (14 %) and 4 women (6 %), the current form of fishing is negative and harmful to the society.

This total result of the question roughly corresponds with the previous chart, where the same proportion of those who expressed a negative opinion on the previous question expressed a negative opinion in this question as well.

6.1.25 Fishing as a hobby

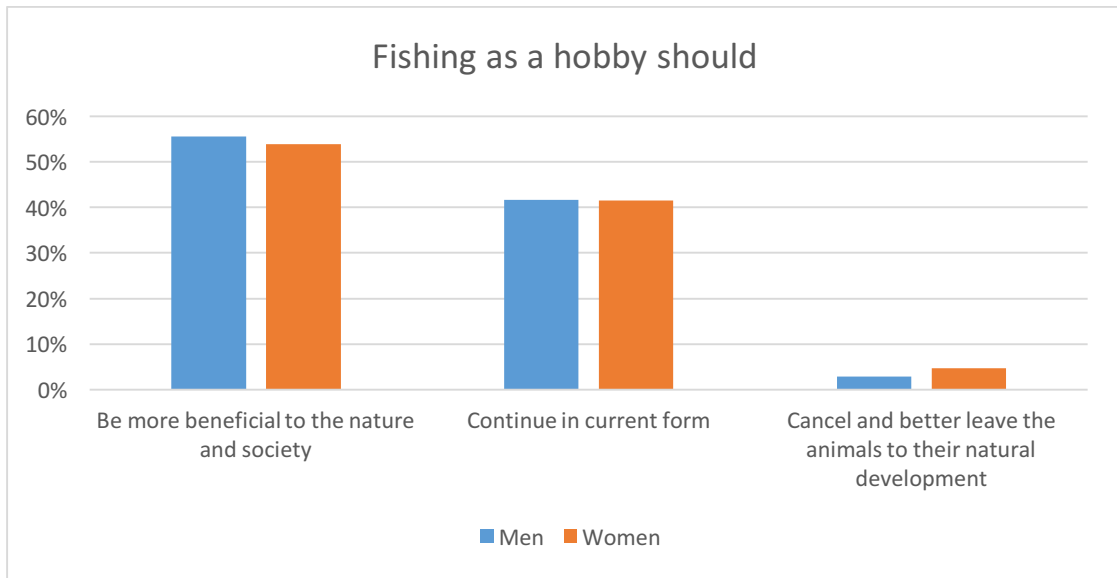


Figure 32: Fishing as a hobby (Own work).

According to the majority of the respondents, fishing should be more beneficial to nature and society. This answer was checked by 40 male respondents (56 %) and 35 female respondents (54 %). Anyway, this statement does not mean that the current state of fisheries is critical. This result only shows that there is room for improvement. In this case, the improvement of *public relations* may help to make fishing more positively perceived.

Anyway, 30 men (42 %) and 27 women (42 %) picked the answer *Continue in the current form*, which is quite a high number of those who agree with the present form of fishing.

The most controversial answer *Be abolished and leave animals to their natural development* was chosen five times. According to 2 men (3 %) and 3 women (5 %), this is the best solution of the current form of *fishing as a hobby*.

6.1.26 Total area of protected areas

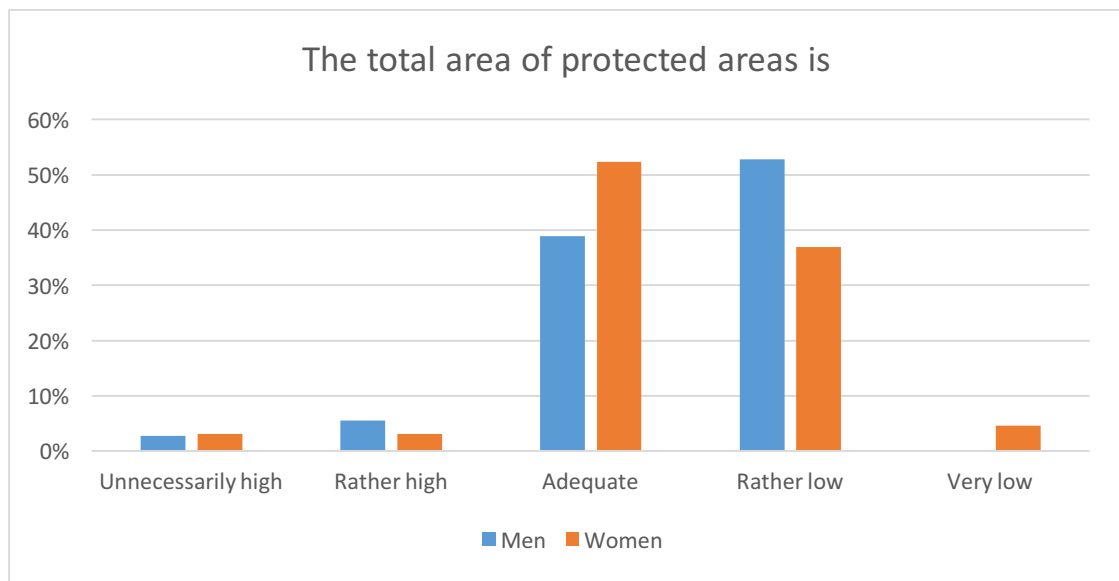


Figure 33: The total area of protected areas (Own work).

According to 2 men (3 %) and 2 women (3 %), the total area of protected areas in the Czech Republic is unnecessarily high.

The option *Rather high* was chosen by 4 male respondents (6 %) and 2 female respondents (3 %).

The total area of these areas is perceived as adequate by 28 men (34 %) and the majority of women, specifically by 34 women (52 %).

On the other side, the majority of men, specifically 38 men (53 %) and 24 women (37 %) think that the total area of the protected areas within the Czech Republic is rather low.

The last statement, *Very low*, was picked by only 3 women (5 %).

This total result shows that the majority of respondents are satisfied with the current size of protected areas or would appreciate a slight increase in the size of these areas. In this case, men are more critical than women.

6.1.27 Degree of protection of protected areas

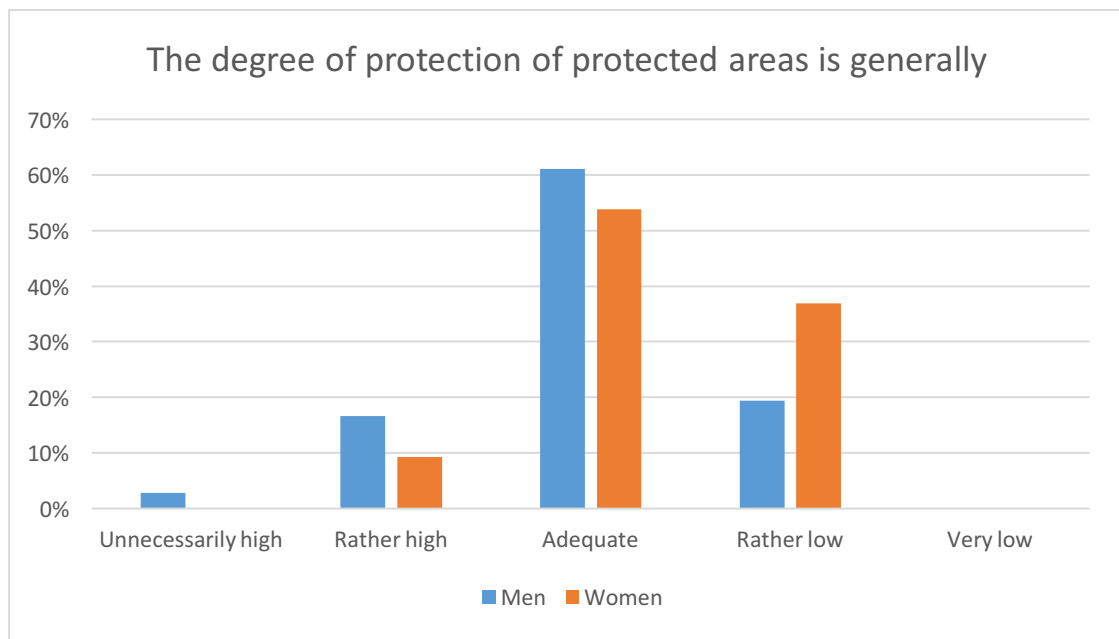


Figure 34: The degree of protection of protected areas (Own work).

The degree of protection of protected areas is perceived as unnecessarily high by only 2 men (3 %).

The option *Rather high* was chosen by 12 men (17 %) and 6 women (9 %) in total.

The most commonly chosen answer by both men and women is an adequate degree of protection of these areas. This option was picked by 44 men (61 %) and 35 women (54 %).

The degree of protection is perceived as rather low by 14 men (19 %) and 24 women (37 %).

Finally, the option *Very low* was chosen by no respondent.

We can see from the result that people are satisfied with the current protection level or they prefer a slight increase of the intensity of the protection. Specifically, men are more satisfied than women and women would like to increase the intensity of the protection.

6.1.28 Number of national parks in the Czech Republic

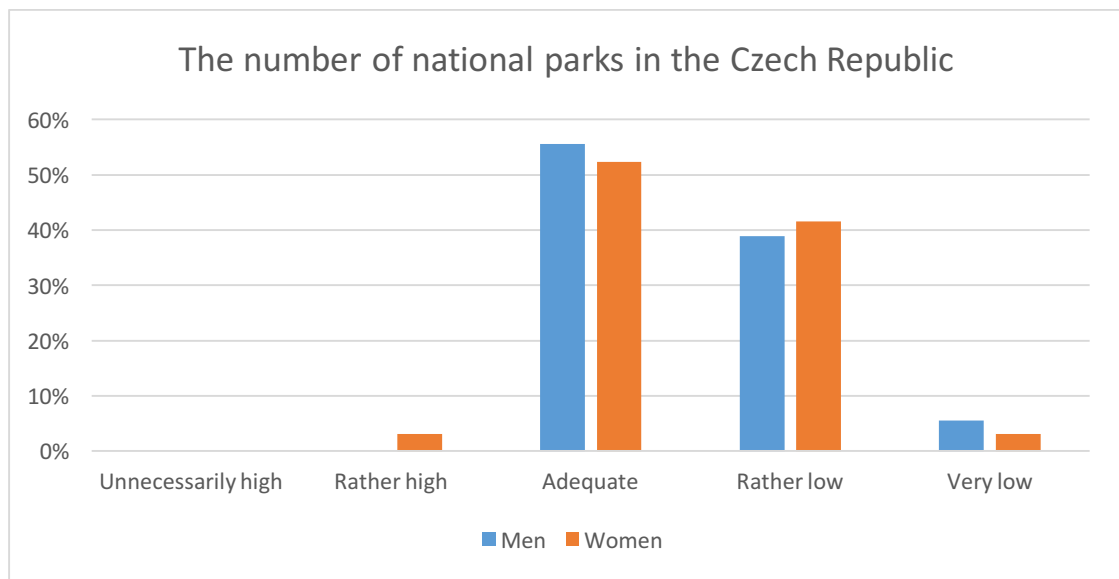


Figure 35: The number of national parks in the Czech Republic (Own work).

The first option, *Unnecessarily high* number of national parks within the Czech Republic, was picked by no respondent. The number of national parks is perceived as rather high by only 2 women (3 %).

According to the majority of men and also women, the current quantity of national parks is adequate and it should continue in the current form. This answer was marked by 40 men (56 %) and 43 women (52 %).

28 men (39 %) and 27 women (42 %) would like to slightly increase the number of national parks, therefore they chose the option *Rather low*.

The number on national parks is perceived as very low by 4 men (6 %) and 2 women (3 %).

From the result of this chart we can read that the majority of respondents are satisfied or they would like to slightly increase the number of national parks in the Czech Republic.

6.1.29 Opinion on the use of wood as an energy source

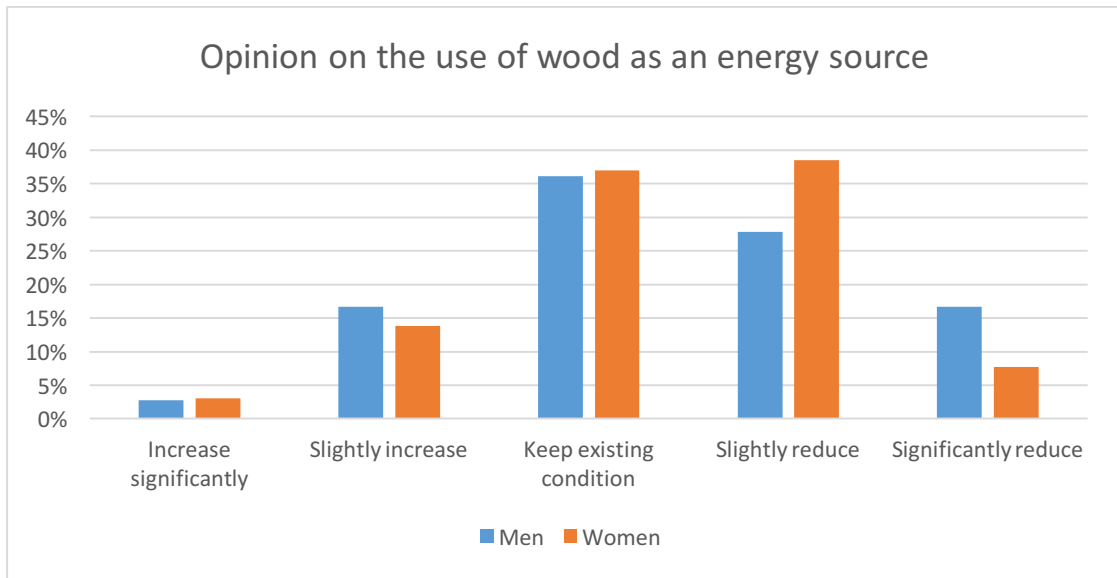


Figure 36: Opinion on the use of raw wood as an energy source (Own work).

The current form of the use of raw wood as an energy source is perceived as inadequate by 2 men (3 %) and 2 women (3 %). According to them it should be increased significantly. The answer *slightly increase* was checked by 12 men (17 %) and 9 women (14 %), which is quite a large number given that this type of energy source is not as environmentally friendly as other possible sources (specifically in the case of thermal energy). Keeping the existing condition is the best solution for most of the men. 26 (36 %) of the male respondents share this opinion. There were 24 women (37 %) who also agreed with this statement.

There are 20 men (28 %) and 25 women (38 %) who think that the use of wood as an energy source should be slightly reduced. Motivations for picking this answer could be various, but it can be expected that the primary motivation for picking this question is the environmental aspect of wood – it is not as environmentally friendly a source of energy as the current possibilities offer (specifically in the case of thermal energy).

12 men (17 %) and 5 women (8 %) agree with a significant reduction in the use of wood as a source of energy.

6.1.30 Opinion on the use of rapeseed, maize, and other crops as an energy source

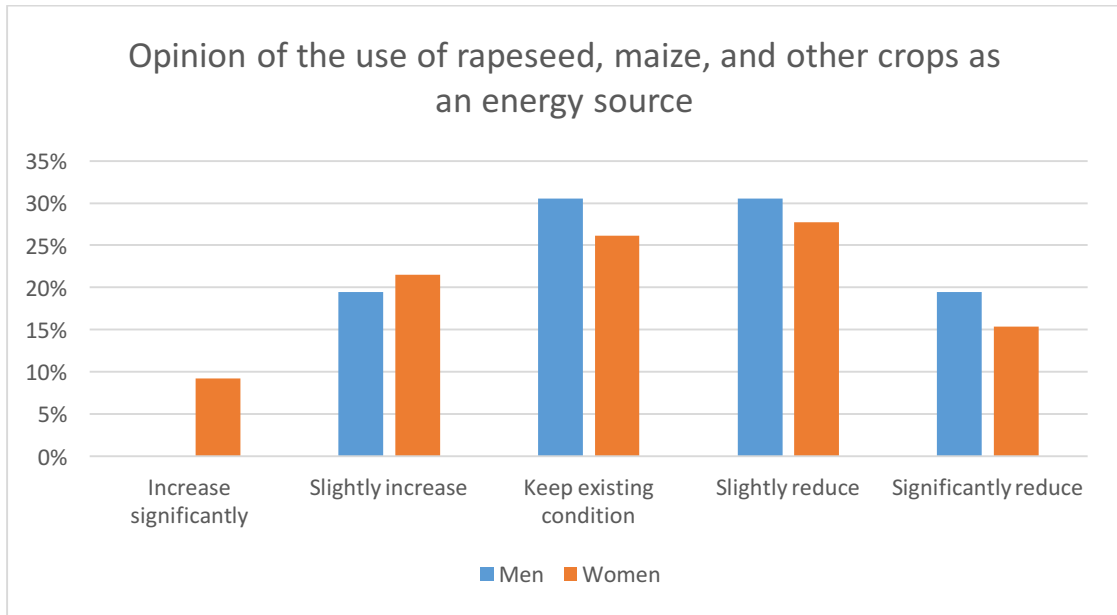


Figure 37: Opinion of the use of rapeseed, maize, and other crops as an energy source (Own work).

The opinion that the use of rapeseed, maize, and other crops as an energy source should significantly increase was expressed by 6 women (9 %) and by none of the men.

A slight increase in the use of these crops as a source of energy is preferred by 14 men (19 %) and 14 women (22 %).

According to 22 male respondents (31 %) and 17 female respondents (26 %), the use of these crops should continue in the current form and thus keep their existing condition.

The same number of men as in the previous answer voted for a slight reduction in the use of rapeseed, maize, and other crops as an energy source. This choice was picked by 22 men (31 %) and among the female respondents, 18 women (28 %) voted for this option.

Given how controversial the last answer is, a significant reduction in the use of these crops was chosen by a surprisingly large number of respondents as well. This answer was chosen by 14 men (19 %) and 10 women (15 %).

6.1.31 Opinion on the building of solar power plants

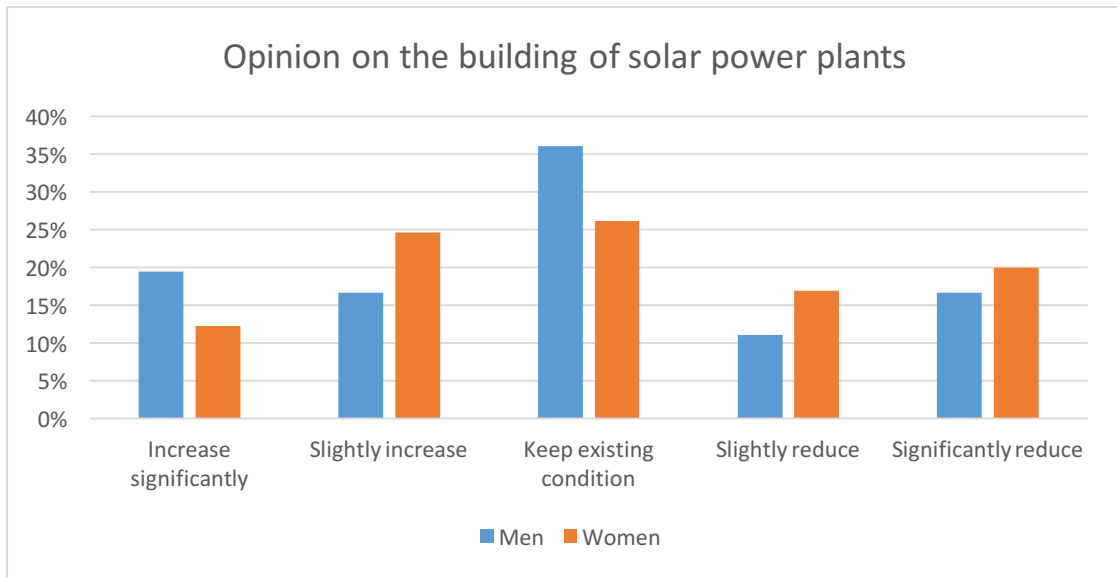


Figure 38: Opinion on the building of solar power plants (Own work).

Solar power plants are the most significant trend in the field of energy production in recent years within the Czech Republic. In the current conditions, the construction of this type of plants is quite economically motivated. Because of this phenomenon, the various opinions differ widely.

A significant increase in the number of solar plants is preferred by 14 men (19 %) and 8 women (12 %).

The number of those who picked the answer *Slightly increase* is a little higher than in the first case. This option was chosen by 12 men (17 %) and 16 women (25 %).

Keeping the existing condition in this energy field was the preferred choice of 26 men (36 %) and 17 women (26 %).

A slight reduction of this type of plant is perceived as the best solution by 8 men (11 %) and 11 women (17 %).

The second highest number of respondents agree with significant reduction. This choice was picked by 12 male respondents (17 %) and 13 women (20 %).

6.1.32 Opinion on the building of wind power plants

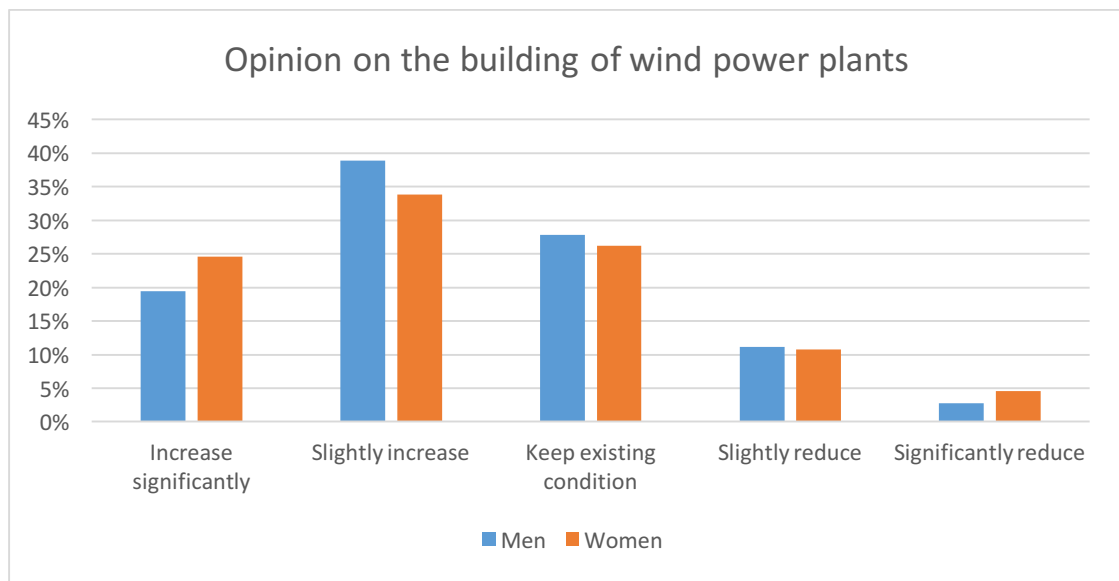


Figure 39: Opinion on the building of wind power plants (Own work).

In the case of significant increase, 14 men (19 %) and 16 women (25 %) voted for this option. The option *Slightly increase* was chosen many more times for this question than in the case of solar energy plants. This time the answer was preferred by 28 male respondents (39 %) and 22 female respondents (34 %).

Quite a high number of respondents also voted for the option of keeping the existing condition. This answer was checked by 20 men (28 %) and 17 women (26 %).

According to 8 men (11 %) and 7 women (11 %), the current number of wind energy plants should be slightly reduced and it is the opinion of 2 men (3 %) and 3 women (5 %) that this kind of plants should be significantly reduced.

As a result, it is evident that the occurrence of wind energy plants in the Czech landscape is perceived much more positively than solar energy plants are. Most respondents agree with increasing the number of power plants, whether slightly or significantly. A large sample of respondents also agree with the current quantity of power plants. Generally, this type of plants is perceived very positively as an energy source.

6.1.33 Frequency of stay in the countryside

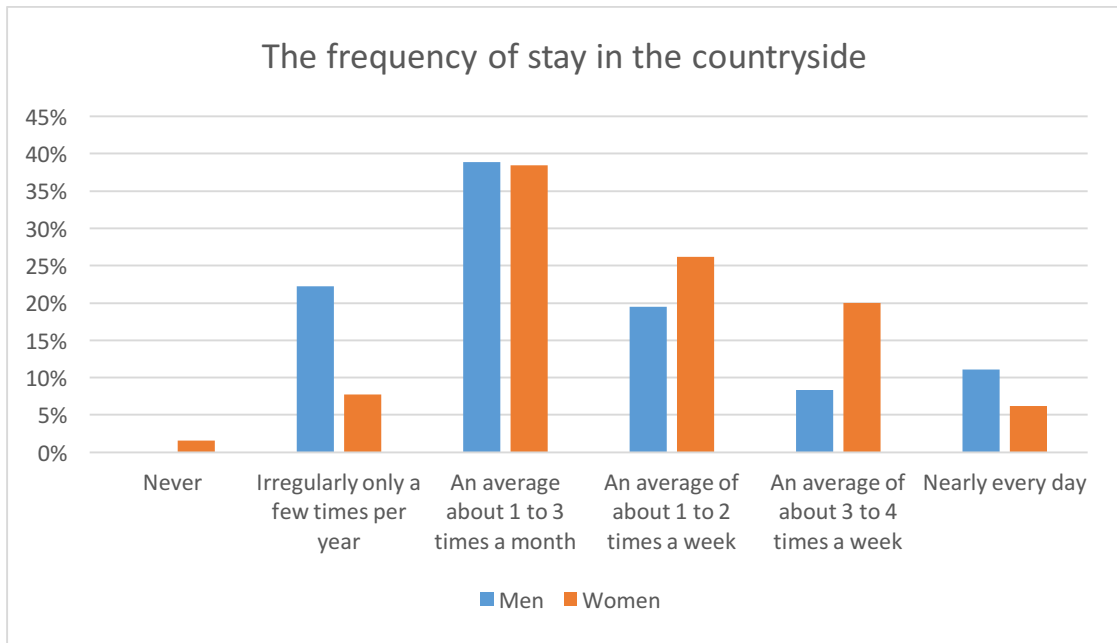


Figure 40: The frequency of the respondent's stay in the countryside (Own work).

Each person has a different relationship to nature, hence each person visits the countryside in a different frequency. Anyway, the respondents answered as follows.

According to the result of the survey, only 1 woman does not visit nature and the countryside ever.

In the case of irregular visits of nature and the countryside a few times per year, there were 16 men (22 %) and 5 women (8 %) who visit nature and the countryside in these scarce occasions. Most of both the men and women visit these areas about 1 to 3 times a month. This option was checked by 28 male respondents (39 %) and 25 female respondents (38 %). The answer *An average of about 1-2 times a week* was picked by 14 men (19 %) and 17 women (26 %). Only 6 men (8 %) and 13 women (20 %) visit nature and areas in the countryside about 3 to 4 times a week.

It was surprising to find that even people who visit these areas nearly every day exist. Thus responded 8 men (11 %) and 4 women (6 %), which is quite a high number of respondents.

6.1.34 Form of respondent's stay in nature and the countryside

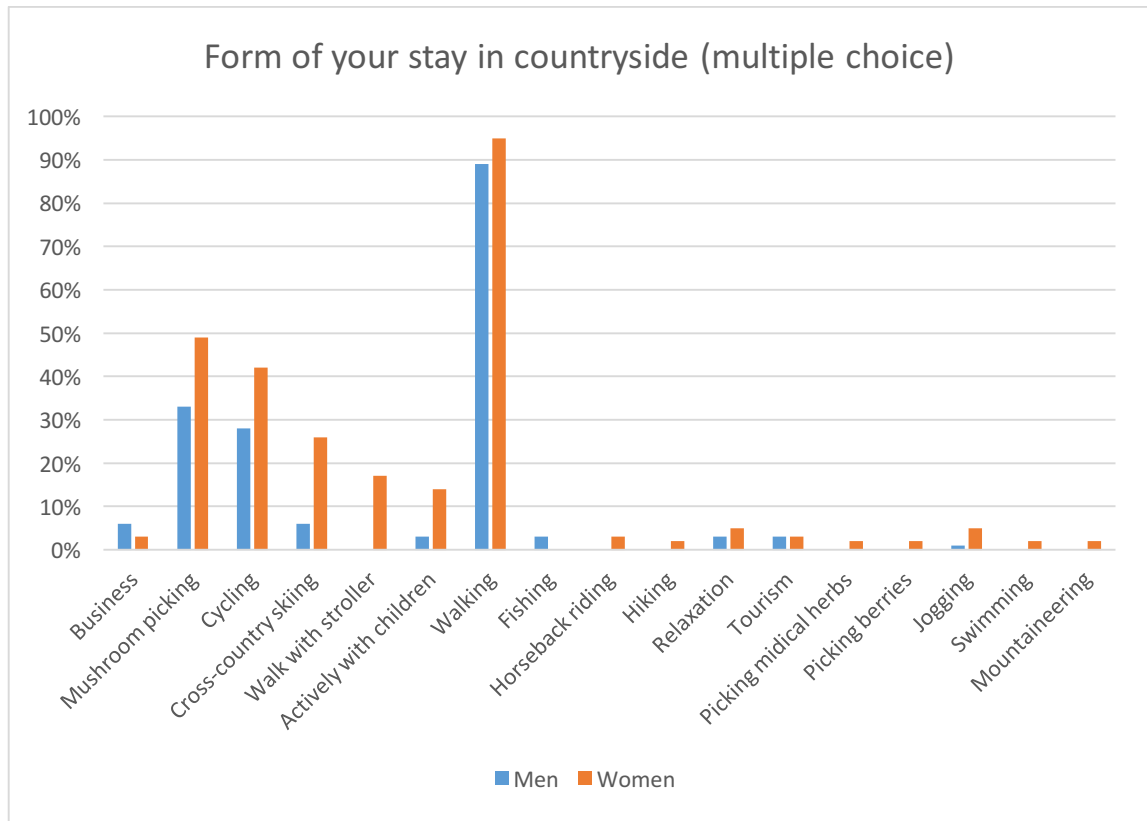


Figure 41: The form of the respondent's stay in nature and the countryside (Own work).

This question is the only one for which it was possible to select multiple answers. Beside this, there was a possibility to add the respondent's own activity as an answer which was missing among the offered options.

Business was picked as the main reason of visiting nature and the countryside by 4 men and 2 women.

Mushroom picking is quite a popular activity; this can be seen from the answer given by 24 men and 32 women.

Cycling in nature is one of the most popular activities as well. This activity is carried out by 20 male respondents and 27 female respondents.

Cross-country skiing is mainly enjoyed by women, specifically 17 women. Only 4 men do cross-country skiing.

Walking with a stroller is mainly a women's activity according to the respondents, but this result is quite understandable because mothers visit these areas more often than men during their *maternity leave*.

Only 2 men and 9 women spend their leisure time *Actively with children*.

Walking in nature and the countryside is the most popular activity. 64 men and 62 women like walking in their spare time, which is the majority of the respondents.

6.1.34.1 Other activities

The other answers mentioned below are those which were missing among the options in the questionnaire and so they were added by the respondents.

Among these responses are activities such as *fishing* (by 2 men), *horseback riding* (by 2 women), *hiking* (by 1 woman), *relaxation* (by 2 men and 3 women), *tourism* (by 2 men and 2 women), *picking medical herbs* (by 1 woman), *picking berries* (by 1 woman), *jogging* (by 1 man and 3 women), *swimming* (by 1 woman) and *mountain climbing* (by 1 woman).

It is obvious from the result that the majority of people have a strong relationship to nature and the countryside areas because almost everyone visits these areas from time to time. The main and only difference is the frequency in which they visit nature.

6.1.35 Preferred landscape for spending time in nature

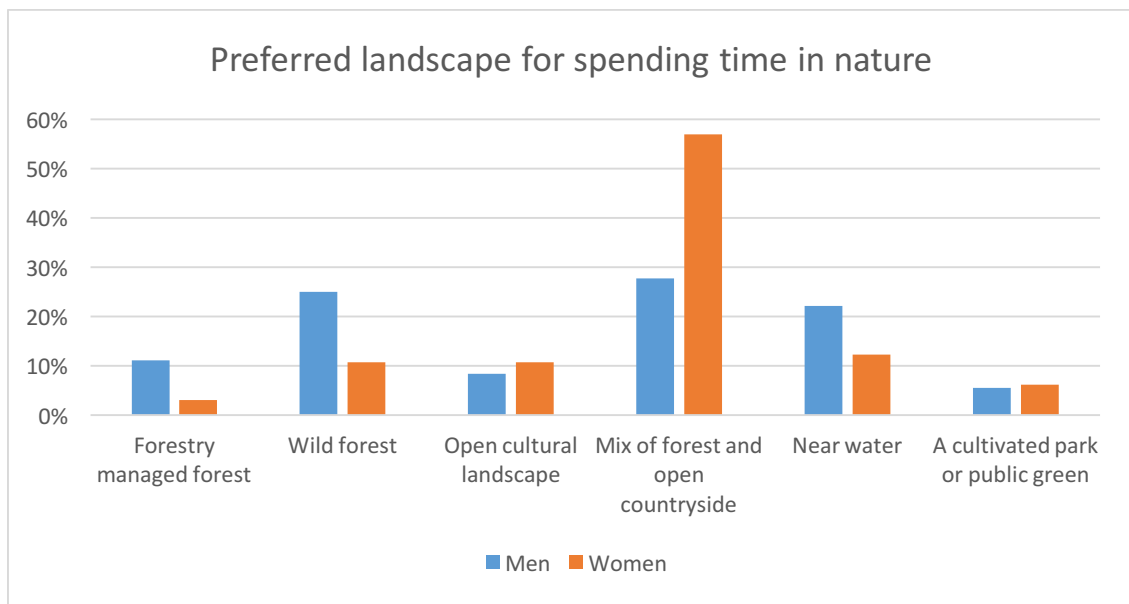


Figure 42: Preferred landscape for spending time in nature. (Own work)

Every person has their own favorite place for spending their free time. The various respondents had the following favorite places. A *forestry managed forest* is the most interesting destination according to 8 men (11 %) and 2 women (3 %).

A *wild forest* was perceived as the best option for spending their free time by 18 men (25 %) and 7 women (7 %). Open cultural landscape was preferred by 6 men (8 %) and 7 women (11 %).

The most favorite landscape type to spend leisure time in is a mix of forests and open landscape. This type of landscape was perceived as the best option for leisure by 20 male respondents (28 %) and 37 women (57 %). In the case of female respondents, this answer was checked by the majority of women.

Only 4 men (6 %) and 4 women (6 %) spend their time in a cultivated park or a public green space.

The result of this chart shows that men are less picky and spend time in any location, while women clearly prefer a mix of forests and open fields.

6.2 Summary of results

As a part of the summary of the results of the various subsections of the questionnaire we created two different profiles of the *typical male opinion* and the *typical female opinion*.

6.2.1 Typical respondent

The typical male respondent:

- The typical male respondent is *18–25 years old*.
- The most common level of education of this sample of respondents is University education.
- They live, in the most cases, in a city of *100 001 – 400 000 inhabitants* (the city of Brno)
- The majority of the male respondents live in a *brick detached house*.

The typical female respondent:

- The typical female respondent is *18 – 25 years old*.
- The most commonly achieved level of education among the women is *secondary education with a GCE*.
- Most of the women live in a city of *100 001 – 400 000 inhabitants*.
- The women typically live in a *brick detached house* just as men do.

6.2.2 Typical opinion on the treatment of private greenery

The typical male opinion on how to deal with private greenery:

- The typical male respondent thinks that the felling of private non-fruit trees with a trunk diameter of more than 25 cm should be the decision of the *owner of the tree*.

- The felling of private fruit trees with a trunk diameter of more than 25 cm should be the decision of the *owner of the tree*.
- According to the typical man the occurrence of private green spaces is *adequate*.

The typical female opinion on the dealing with private greenery:

- Typical female respondent thinks that the felling of private non-fruit trees with a trunk diameter of more than 25 cm should be the decision of the *owner of the tree*.
- The felling of private fruit trees with a trunk diameter of more than 25 cm should be the decision of the *owner of the tree*.
- The typical woman perceives the occurrence of private green spaces as *adequate*.

6.2.3 Typical opinion on the treatment of public greenery

The typical male opinion on the treatment of public greenery:

- The typical male opinion on the occurrence of public green spaces is that there is a *rather low* number of these spaces.
- According to the typical man's opinion, the age of trees in public green spaces is *adequate*.
- The best way to treat superannuated trees is to secure them against falling.

The typical female opinion on the treatment of public greenery:

- Women think that there is a *rather low* number of public green spaces.
- According to the typical woman, the age of trees in public green spaces is *rather high*.
- Superannuated trees should be *secured against falling*.

6.2.4 Typical opinion on agriculture

The typical male opinion on agriculture:

- According to the typical man, agricultural arable land (fields) is *used mostly intensively*.
- The use of non-arable land (grasslands) is *adequate*.
- The typical man thinks that the composition of agricultural crops is *too economically motivated*.
- The activity of farmers is perceived as *beneficial to society*.

The typical female opinion on agriculture:

- According to the typical woman, agricultural arable land (fields) is used *mostly intensively*.
- Non-arable agricultural lands (grasslands) are used *adequately*.
- The composition of agricultural crops is *too economically motivated*.
- The typical women perceives the activity of farmers as *beneficial to society*.

6.2.5 Typical opinion on the forestry

The typical male opinion on forestry:

- The use of forest land as a source of raw wood material is *mostly intensive*.
- The composition of tree species is perceived as an *adequate* ratio of coniferous and deciduous trees.
- According to the typical man, Czech forests are *utilized appropriately*.
- The activity of foresters is perceived as *adequate to nature, business owners, and renters of land*.

The typical female opinion on forestry:

- The use of forest land as a source of raw wood material is *mostly intensive*.

- The composition of tree species is perceived as *rather too coniferous*.
- The typical woman thinks that the forests are *mostly economically exploited*.
- The activity of foresters is perceived as *adequate to nature, business owners, and renters of land*.

6.2.6 Typical opinion on hunting

The typical male opinion on hunting:

- The typical male respondent perceives hunting as a *sensible use of natural resources – wild game*.
- The current form of hunting is perceived in a *neutral* way.
- Hunting as a hobby should *continue in the current form*.

The typical female opinion on hunting:

- The typical female respondent perceives hunting as a *sensible use of natural resources – wild game*.
- According to the results, the current form of hunting is perceived in a *neutral* way.
- Hunting as a hobby should *continue in the current form*.

6.2.7 Typical opinion on fishing

The typical male opinion on the fishing:

- According to the typical male respondent, fishing is perceived as a *sensible use of natural resources – fish meat*.
- The current form of fishing is perceived in a *neutral* way.
- The typical man thinks that fishing should *be more beneficial to nature and society*.

The typical female opinion on fishing:

- According to the typical female respondent, fishing is perceived as a *sensible use of natural resources – fish meat*.
- The current form of fishing is perceived in a *neutral* way.
- The typical female respondent thinks that fishing should *be more beneficial to nature and society*.

6.2.8 Typical opinion on the protected areas

The typical male opinion on the protected areas:

- The typical male respondent thinks that the total area of protected areas within the Czech Republic is *rather lower* than it should be.
- The degree of protection of these areas is *adequate*.
- The number of national parks in the Czech Republic is *adequate*.

The typical female opinion on the protected areas:

- The typical female respondent thinks that the total area of protected areas is *adequate*.
- The degree of protection of these areas is *adequate*.
- The number of national parks within the Czech Republic is *adequate*.

6.2.9 Typical opinion on the support of bio energies

The typical male opinion on the support of bioenergy:

- According to the typical male respondent, the use of wood as an energy source should *continue in the existing condition*.
- In the case of the opinion on the use of rapeseed, maize, and other crops as an energy source, there are two profiles of the typical male respondent, because two

answers shared the top spot as the most picked – with the same number of checkmarks. So in this case the opinion on the use of rapeseed, maize, and other crops as an energy source is that it should *be kept in the existing condition*. The other most popular answer is to *slightly reduce the use of these crops*.

- The typical man thinks that the building of solar power plants should *continue in the existing condition*.
- In the case of the construction of wind power plants, the typical man thinks that it should be *slightly increased*.

The typical female opinion on the support of bioenergy:

- According to the typical female respondent, the use of wood as an energy source should be *slightly reduced*.
- In the case of the typical female respondent, the opinion on the use of rapeseed, maize, and other crops as an energy source is to *slightly reduce* the use of these crops.
- The typical woman thinks that the building of solar power plants should *continue in the existing condition*.
- In the case of the construction of wind power plants, the typical woman thinks that it should be *slightly increased*.

6.2.10 Stay in the countryside of the typical respondent

Stay of the countryside of the typical male respondents:

- The typical man spends his time in nature or the countryside *1 to 3 times a week*.
- The favorite activity done in nature or the countryside is recreational *walking*.
- The favorite landscape of the typical male respondent is *a mix of forests and open fields*.

Stay of the countryside of the typical female respondents:

- The typical woman spends her time in nature or the countryside *1 to 3 times a week*.
- The favorite activity done by the typical female respondent in nature or the countryside is recreational *walking*.
- The favorite landscape for spending time in nature is *a mix of forests and open fields*.

6.3 Correlations

6.3.1 Residents of detached houses prefer to decide about felling their trees for themselves

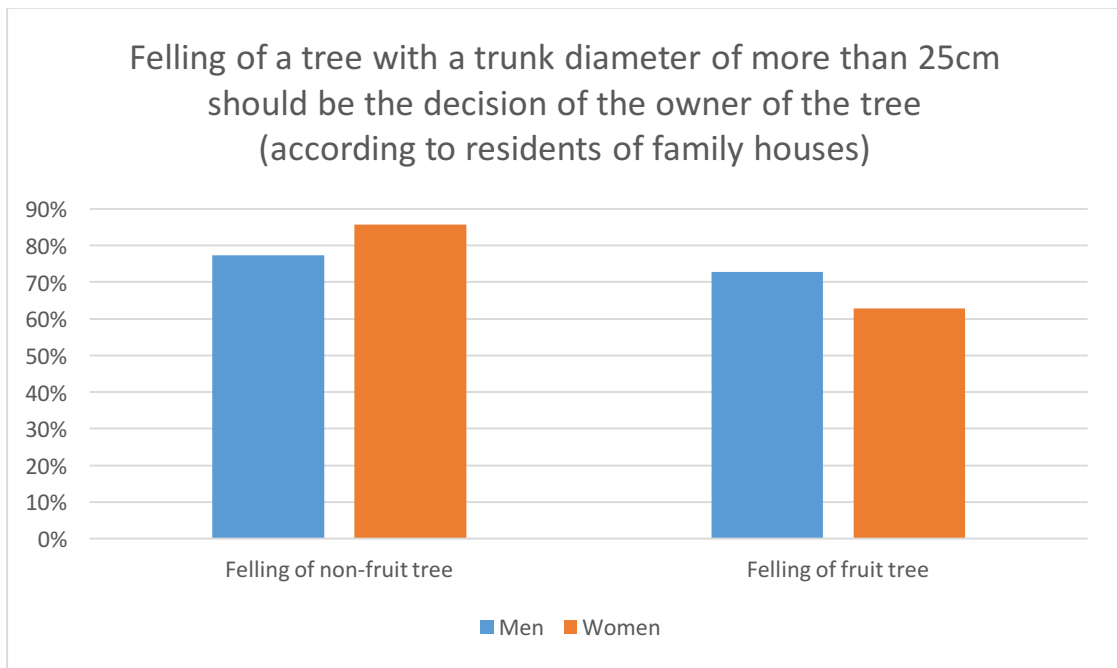


Figure 43: Residents of family houses prefer to decide about felling their trees for themselves (Own work).

After filtering the data, the phenomenon emerged. This phenomenon shows a strong correlation. This correlation is based on the preferences of homeowners regarding the felling of both fruit and non-fruit trees. According to the result of the filtered chart, this correlation shows that in most cases, owners of detached houses prefer to decide about cutting down the trees that are located on their property.

44 of the men and 35 of the women live in a detached house. According to the men's opinion, 34 men (77 % of male respondents living in a detached house) would like to decide about felling their non-fruit trees for themselves. In the case of fruit trees, 73 %

of male respondents living in a detached house (32 men) would like to decide about felling their fruit trees for themselves.

86 % of the female respondents (30 women) living in a detached house would like to decide about felling their non-fruit trees for themselves. In the case of fruit trees, 63 % of the female respondents living in a detached house (22 men) would like to decide about felling their fruit trees for themselves.

6.3.2 Wind power plants are perceived more positively than solar power plants

Even though both wind power plants and solar power plants are very environmentally friendly, according to the results of *figure 38: Opinion on the building of solar power plants* and *figure 39: Opinion on the building of wind power plants*, the opinion of the representative sample shows that the popularity of solar power plants is not as high as it should be given their environmental performance. This is probably due to the excessive economic motivation of building this kind of power plants. Generally, it is because this type of power plants is perceived as a rent seeking activity under *the label* of green energy.

The saturation of this type of power peaked, so people are more supportive to less visible and less publicly discussed power plants.

6.3.3 Women are more fixed on nature

According to *figure 34: The degree of protection of protected areas*, *figure 40: The frequency of stay in the countryside*, and *figure 41: The form of respondent's stay in nature and the countryside*, women are more fixed on nature than men. This statement is confirmed by the results of these three graphs, from which it follows that women prefer a higher degree of protection of nature, women spend much more time than men

in nature, and they visit these areas more often than men. Nature is also used by women to carry out much more diverse activities than in the case of the male respondents.

Apparently, women like to spend time in nature more than men, which may be associated with the fact that they often spend time in nature during their maternity leave. This fact also reflects the more active lifestyle of women.

6.3.4 People are more lenient to crops than to wood as a source of bioenergy

People consider rapeseed, maize, and other crops a better source of bioenergy than wood. This fact can easily be seen by comparing *figure 36: Opinion on the use of raw wood as an energy source* and *figure 37: Opinion on the use of rapeseed, maize, and other crops as an energy source*. This is probably due to the fact that people perceive wood as a valuable natural resource and thus prefer to use more conventional crops. It is also clear that people have environmental feelings and they probably try to protect the forests around them.

6.3.5 People perceive non-fruit trees as more valuable than fruit trees

The fact that people perceive non-fruit trees as more valuable than fruit trees (regarding private greenery) can be easily seen after comparing *figure 13: The felling of private non-fruit trees with a trunk diameter of more than 25 cm* and *figure 14: The felling of private fruit trees with a trunk diameter of more than 25 cm*. When the respondents were asked about their opinion, more people voted for the option *The society, through the competent authority* in the case of non-fruit trees (39 % of men, 31 % women), than in the case of fruit trees (31 % of men, 15 % of women). It suggests that people care more about non-fruit trees and thus they prefer the felling to be properly assessed and approved by the competent authority.

6.3.6 Perception of agriculture, hunting, and fishing across municipalities of all sizes

During the process of collecting the respondents' opinion on the individual branches of the primary sector in dependence on the size of the municipality, it was found that the primary sector is perceived positively by people from municipalities of all sizes. The only difference between them is whether the respondents perceive these sub-sectors more as *beneficial to society* or more as *adequate to nature, business owners, and renters of land*.

In the case of hunting it is visible in the graph below that the trend of the answer *Beneficial to society* is decreasing across the municipalities (i.e. from the smallest villages to the largest). This shows that the larger the municipality is, the less this activity is perceived as beneficial, and conversely the perception of this activity grows more as adequate to nature and business.

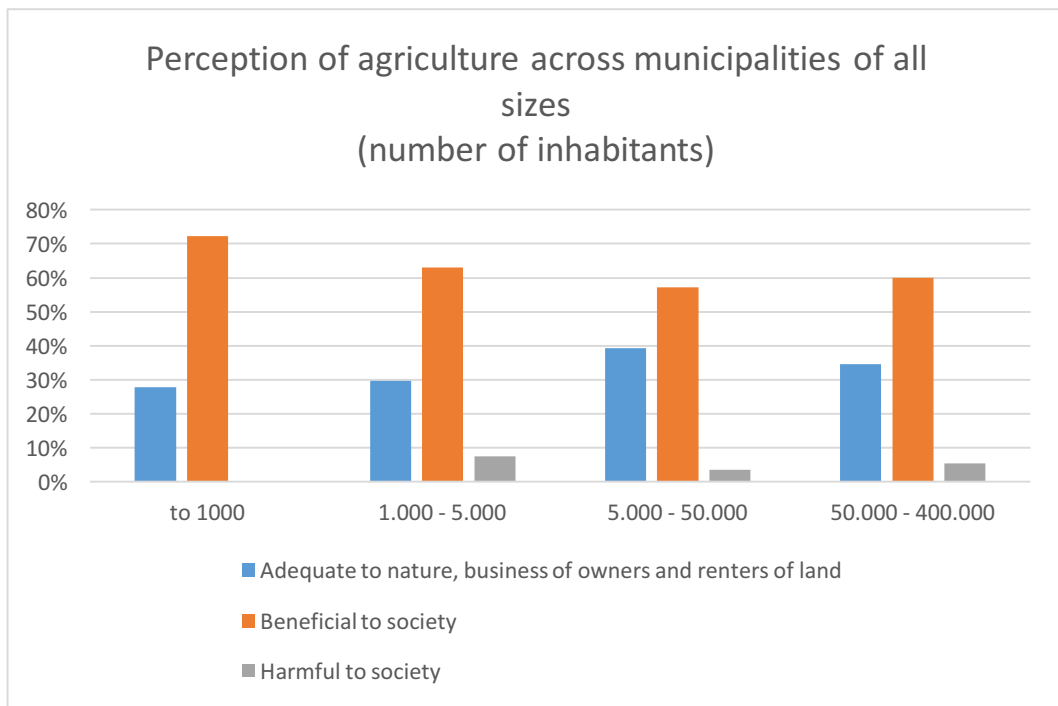


Figure 44: Perception of agriculture across municipalities of all sizes (Own work).

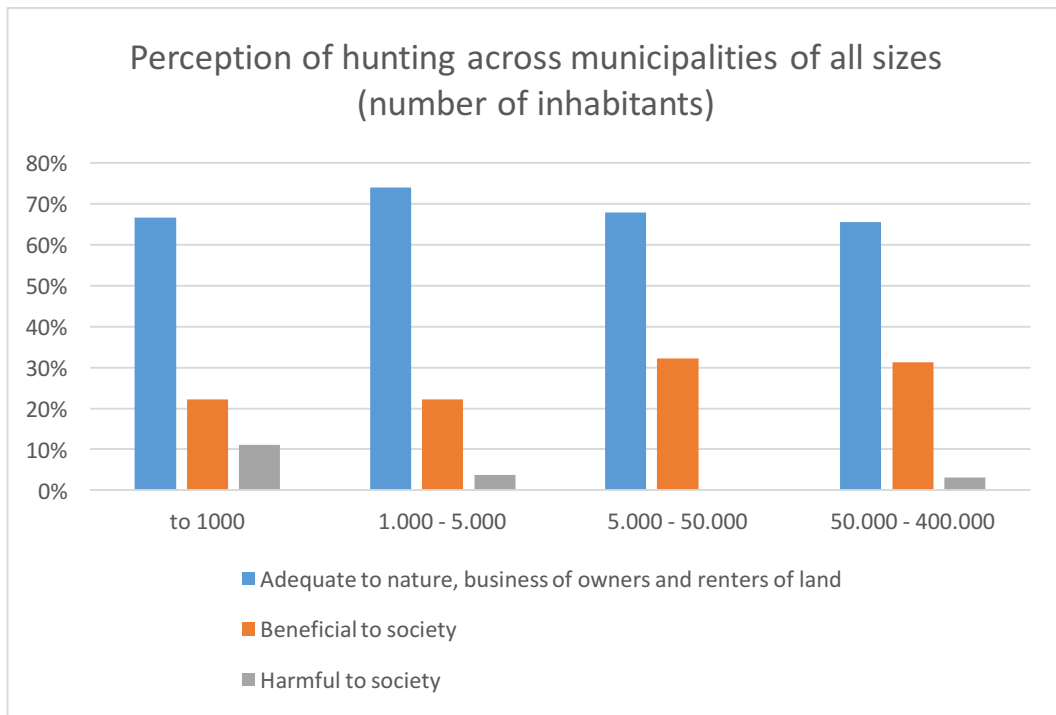


Figure 45: Perception of hunting across municipalities of all sizes (Own work).

Conversely, the perception of hunting as a beneficial activity has a slowly increasing trend with the increasing number of residents. The perception of hunting as *adequate to nature, business owners, and renters of land* is fairly balanced across all types of municipalities. It is interesting, however, that the smaller the municipality is the more people have a negative perception of hunting.

In the case of fishing, the average trend of a positive perception of this activity is decreasing across the municipalities. The bigger the community, the less positively fishing is perceived by people. In any case, this activity is mostly seen as neutral.

As we can see, the main difference is not only in the perception of these sub-sectors, but this perception obviously differs in dependence on the size of the municipality. Agriculture is thus perceived mostly as an activity which is *beneficial to society*; on the other hand, hunting is perceived as *adequate to nature, business owners, and renters of land*. In the case of fishing the perception is neutral.

7 Implementation

7.1 Recommendation for the South Moravian Region

One of the most important recommendations for the SMR is to increase the area of public green spaces, especially in urban areas. This is a problem particularly in larger cities and towns. In some parts of the bigger cities and municipalities in the SMR there is a shortage of parks and other areas intended for relaxation and leisure activities. Mainly due to the high concentration of people in these areas, the SMR should respect this recommendation in order to increase the satisfaction of the population living in these areas.

Another recommendation which is not so easily executable is to check old vegetation and endangering trees, both public and private, periodically. The aim of this recommendation is to monitor the state of old trees, which would prevent the trees from falling. Trees that no longer fulfilled the conditions necessary for their existence would be felled immediately.

7.2 Recommendation for the people involved with the primary sector

The main opportunity for a better perception of the primary sector is to improve the marketing approach in order to improve public awareness. The improvement of the public relations could serve as a part of the recommendation aimed at the primary sector.

7.3 Recommendation in the area of management of protected areas

Given that the satisfaction of the respondents who completed the questionnaire is quite high in the area of management of protected areas, the main recommendation could be to continue in the current activities in order to further maintain the public satisfaction.

7.4 Recommendation in the area of bioenergy support

Those who support bioenergy and especially those who support solar energy plants should improve their public relations approach because of the bad perception of this type of plants (*figure 38: Opinion on the building of solar power plants*). There would then be a chance to accept this source of energy not only as economically motivated business.

All the recommendations for improvement of the public relations may be implemented in the form of articles in the media, promotional materials, change of sub-sector's behavior, public events, etc.

It would also help the establishment of forest pedagogy, activities of hunting and fishing clubs, or the popularization of these fields.

8 Discussion

8.1 The age imbalance of the respondents

A preponderance of 18–25-year-old respondents was registered within the sample of respondents. This is mainly due to the fact that people are often students at this age or know other people who are students. Therefore, they know how difficult it is to obtain a representative sample for the purposes of a scientific study and so they are far more willing to help other students with their duties. Refusal to fill out the questionnaire during the data collection occurred most often in the age groups over 25 years.

The remaining age groups are represented by a balanced number of respondents and thus there is no further skewing of results.

8.2 Irregularities in the results

In the evaluation of the results in section 6.1, *The results of the questionnaires with charts and commentary*, apparent inconsistencies often popped up in the answers of a respondent in cases where several questions were related in some way.

These deviations are to some extent caused by the respondents' poor understanding of the issue. A certain proportion of these contradictions can be explained by the fact that the respondent did not know much about the specific issue, so they tried to fill out the questionnaire according to their internal ideal.

As an example we can mention the contradiction in the fact that people consider the composition of crops as too economically motivated (*figure 21: The composition of agricultural crops*), but in the next graph (*figure 22: The activity of farmers*), agriculture is considered to be beneficial to society by most people. Thus there is a clear contradiction between the two most popular answers.

8.3 Comparison with the Vysočina Region

The same thesis topic has been drawn up at the same time by colleague Hovorka. His thesis is focused on the same issue within the Vysočina Region. Below are mentioned only the basic differences that were recognized in respondents' perception in each field of the study (Hovorka, 2016).

In case of *private greenery*, the main difference consists in perception of occurrence of private greenery within the Vysočina Region of. The occurrence of this greenery was perceived as *above average* (in the SMR it is *adequate*).

The spaces of *public greenery* in the Vysočina Region are perceived as *adequate*, instead of the SMR, where is where the occurrence of public green is perceived as *rather low*. The second main difference is that in the Vysočina Region respondents think, that elderly trees should be *cut down immediately*.

In the area of *agriculture*, the use of the arable land is perceived as *very intensive (plundering)*. In case of non-arable land is the use perceived as *insufficient*. The form of current agriculture is perceived as *adequate to natural and mining* of these areas.

The current form of use of the *forest lands* as a source of raw wood material is *adequate*. Czech forests are considered to be quite lot economically exploited.

The section *hunting* contains in case of man the same opiniona. In case of women, there are some differences in its perception. In the Vysočina Region, hunting is perceived as *private hobby in conflict with nature and public*, and it should be more beneficial to society.

The *fishing* is, within this study focused on Vysočina Region, perceived in the same way as in the SMR.

Level of protection of *protected areas* is perceived as *adequate* as well as in the SMR. Number of national parks is perceived as *rather low*. (In the SMR it is *adequate*)

Use of rapeseed, maze, and other agricultural crops should be, by the opinion of respondents in Vysočina Region, *slightly increased*. Solar power plants should be *significantly reduced*. Wind power plants should *continue in existing condition*.

Men of the Vysočina Region spend their time in nature *1–3 per week*. Women living in the Vysočina Region spend the same time in the countryside as in the SMR.

8.4 Similar foreign studies

In this study it was tempted to find similar studies abroad. Unfortunately, no studies, which had a similar predictive value was found. Many books have dealt only with a theoretical plane of this issue. None of them, however, did not include the results of the field survey.

9 Summary

The aim of this diploma thesis is a Marketing survey of the public opinion on the use of the countryside in the South Moravian Region.

The chosen topic of this thesis is focused on the link between the regional development fields, i.e. tourism and leisure activities in relation to the current state of public and private greenery, activities of agriculture, forestry, fishing, hunting, construction, and the use of bioenergy plants in the South Moravian Region.

This research should serve to promote and develop the South Moravian Region in the area of quality and quantity of public greenery, the countryside and nature generally. The whole study should serve as a feedback addressed to all the local authorities, farmers, fishermen, hunters, and foresters who have influence over the state and quality of the environment in the Czech Republic.

9.1 Methodology

One of the most important partial goals was to create a quality questionnaire. In the end, this questionnaire contains 35 questions. As the next step the questionnaire was submitted to the addressed respondents within the whole South Moravian Region. The channel used for the collection of questionnaires was primarily personal data collection and an internet survey application was used in the rest of the cases. The completed questionnaires were then transferred to table form in MS Excel. All data was filtered to percentage results which are interpreted in the form of charts and also as written text in the empirical part of the thesis. Furthermore, correlations were identified between the most significant phenomena and recommendations addressed to individual stakeholders were written.

9.2 The results of graphs/diagrams – the most frequent answers

Typical respondent:

- Typical male respondent is *18 – 25 years old*.
- The most common level of education of respondents is in case of men the *University education*, in case of women *secondary education with GCE*.
- They live, in most cases, in a city of Brno (100 000 and more).
- The majority of respondents live in the *brick detached house*.

Typical opinion on the treatment of private greenery:

- Typical male respondent thinks that about the felling of private non-fruit trees with trunk diameter of more than 25 cm should be the decision of the *owner of the tree*.
- The felling of private fruit trees with a trunk diameter of more than 25 cm should be the decision of the *owner of the tree*.
- According to typical respondent the occurrence of private green is *adequate*.

Typical opinion on the treatment of public greenery:

- The typical opinion on the occurrence of public green spaces is that there is a *rather low* number of these spaces.
- According to the typical man's opinion, the age of trees in public green spaces is *adequate*. According to the typical women, it is *rather high*.
- The best way to treat superannuated trees is to secure them against falling.

Typical opinion on the agriculture:

- According to the typical respondent, agricultural arable land (fields) is *used mostly intensively*.
- The use of non-arable land (grasslands) is *adequate*.

- The typical respondent thinks that the composition of agricultural crops is *too economically motivated*.
- The activity of farmers is perceived as *beneficial to society*.

Typical opinion on the forestry:

- The use of forest land as a source of raw wood material is *mostly intensive*.
- The composition of tree species is perceived as an *adequate* ratio of coniferous and deciduous trees.
- According to typical man, the Czech forests are *utilized appropriately*, in case of woman's opinion, these forests are *mostly economically exploited*.
- The activity of foresters is perceived as *adequate to nature, business owners, and renters of land*.

Typical opinion on the hunting:

- The typical respondent perceives hunting as the *sensible usage of natural resources – wild game*.
- The current form of hunting is perceived in *neutral* way.
- Hunting as a hobby should *continue in the current form*.

Typical opinion on the fishing:

- According to the typical respondent, fishing is perceived as a *sensible use of natural resources – fish meat*.
- The current form of fishing is perceived in a *neutral* way.
- The typical respondent thinks that the fishing should *be more beneficial to the nature and society*.

Typical opinion on the protected areas:

- The typical respondent thinks that the number of protected areas within the Czech Republic is *rather low* than it should be, women thinks that it is *adequate*.

- The degree of protection of these areas is *adequate*.
- The number of national parks in the Czech Republic is *adequate*.

Typical opinion on the support of bioenergy:

- According to the typical respondent, the use of wood as an energy source should *continue in the existing condition*.
- In the case of the typical respondent, the opinion on the use of rapeseed, maize, and other crops as an energy source is to *slightly reduce* the use of these crops.
- The typical respondent thinks that the building of solar power plants should *continue in the existing condition*.
- In case of construction of wind power plants, the typical respondent thinks that it should *be slightly increased*.

Stay of the countryside of the typical respondent:

- Typical respondent spends his time in the nature or countryside *1 to 3 times a week*.
- The most favorite activity done in the nature or countryside is recreational *walking*.
- The most favorite landscape of typical respondent is the *mix of forest and open countryside*.

10 Conclusion

This whole study should serve to improve the regional development regarding the use of land in the South Moravian Region. Very valuable data were obtained during this study. The implementation of the given recommendations may serve to improve the cohabitation and satisfaction of the various stakeholders, whether they perceive the area as space for their business activities or whether they spend their free time in nature and this natural environment is their only opportunity to relax and engage in leisure activities.

As was mentioned before, recommendations for the various industries present in the South Moravian Region were given.

In the case of the South Moravian Region's local authorities and other related bureaus, it is necessary to increase the area of public green spaces in order to achieve greater satisfaction of the region's inhabitants, especially in the urban areas. It would also be appropriate to periodically inspect trees, both private and public.

The primary sector is perceived quite positively in general. *Agriculture* is perceived as an activity which is beneficial to society, but often economically motivated. In the case of *hunting*, this activity is perceived as an activity which is adequate to nature, business of owners, and renters of land, but it is not as beneficial to society as it should be. *Fishing* is perceived quite neutrally – it is generally seen as a sensible use of natural resources and also as a private hobby in alignment with the interests of nature and society. *Forestry* is perceived mainly as an activity which is adequate to nature, business of owners, and renters of land. Fulfilling the given recommendations for the primary sector's subsectors would lead to an improvement in the perception of the primary sector by ordinary people in general and could improve their mutual respect for each other – the primary sector would respect the preferences of ordinary people and vice versa. An improvement of the public relations is thus the best solution in order to achieve the socio-economic development of the region.

The part of the study focused on the opinion of the population on the current state and the number of *protected areas* shows that most people are satisfied with the current

treatment of these protected areas. It follows that there is no need for any changes in this area.

This entire study would be particularly useless if people would not have a relationship with nature in their area. Fortunately, people are still dependent on nature, they care about it, and they try to protect it best as they can. Average people go to the countryside 3–5 times a week, which is, given the total free time, quite a lot.

It is very important that the activities of the primary sector do not restrict ordinary people and their free time spent in the nature; on the other hand, it is necessary that ordinary people tolerate the activities of these farmers. Finding a reasonable compromise between the two main groups of stakeholders of the environment (the *primary sector and its related activities* and the *ordinary people*) in the SMR is the most sensible way of finding the most efficient socio-economic development of the region. Thanks to this study, the achievement of this status should be a little closer.

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Figure 9: Age composition of the respondents.

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Figure 11: The size of the municipality of residence.

Figure 12: Type of living of the respondents.

Figure 13: The felling of private non-fruit trees with trunk diameter of more than 25 cm.

Figure 14: The felling of private fruit trees with trunk diameter of more than 25 cm.

Figure 15: Occurrence of private greenery.

Figure 16: Occurrence of public green spaces.

Figure 17: Age of trees in public greenery.

Figure 18: Treatment of superannuated trees.

Figure 19: Use of agricultural arable land (fields).

Figure 20: Use of agricultural non-arable land (grasslands).

Figure 21: The composition of agricultural crops.

Figure 22: The activity of farmers.

Figure 23: Use of forest lands as a source of raw wood.

Figure 24: Composition of tree species compared to the ideal state.

Figure 25: Exploitation of Czech forests.

Figure 26: The activity of foresters.

Figure 27: The activities of hunters.

Figure 28: Current form of hunting.

Figure 29: Hunting as a hobby.

Figure 30: Fishing.

Figure 31: Current form of fishing.

Figure 32: Fishing as a hobby.

Figure 33: The total area of protected areas.

Figure 34: The degree of protection of protected areas.

Figure 35: The number of national parks in the Czech Republic.

Figure 36: Opinion on the use of raw wood as an energy source.

Figure 37: Opinion of the use of rape, maize and other agricultural crops as an energy source.

Figure 38: Opinion on the building of solar power plants.

Figure 39: Opinion on the building of wind power plants.

Figure 40: The frequency of respondent's stay in the countryside.

Figure 41: The form of respondent's stay in nature and the countryside.

Figure 42: Preferred landscape for spending time in nature.

Figure 43: Residents of family houses prefer to decide about felling of their trees for themselves.

Figure 44: Perception of agriculture across municipalities of all sizes.

Figure 45: Perception of hunting across municipalities of all sizes.

Annex A

DOTAZNÍK

I. - RESPONDENTI

1) Pohlaví:

- Muž
- Žena

2) Věk:

- 18 - 25
- 26 - 35
- 36 - 50
- 51 - 65
- 66+

3) Vzdělání:

- Základní
- Středoškolské bez maturity
- Středoškolské s maturitou
- Vysokoškolské

4) Velikost obce trvalého pobytu:

- Obec do 1000 obyvatel
- Obec 1 001 - 5 000 obyvatel
- Obec 5 001 - 20 000 obyvatel
- Obec 20 001 - 50 000 obyvatel
- Obec 50 001 - 100 000 obyvatel
- Brno

5) Typ bydlení:

- Zděný rodinný dům
- Rodinný dům na bázi dřeva
- Panelový byt
- Cihlový byt
- Ostatní

II. - SOUKROMÁ ZELENĚ

6) O kácení soukromé neovocné dřeviny o průměru kmene více než 25 cm by měl dle Vašeho názoru rozhodovat:

- Vlastník stromu
- Společnost prostřednictvím příslušného úřadu

7) O kácení soukromé ovocné dřeviny o průměru kmene více než 25 cm by měl dle Vašeho názoru rozhodovat:

- Vlastník stromu
- Společnost prostřednictvím příslušného úřadu

8) Soukromé zeleně je:

- Velmi hodně
- Spíše hodně
- Přiměřené
- Spíše málo
- Velmi málo

III. - VEŘEJNÁ ZELENĚ

9) Plochy veřejné zeleně je:

- Velmi hodně
- Spíše hodně
- Přiměřené
- Spíše málo
- Velmi málo

10) Věk stromů veřejné zeleně je:

- Velmi vysoký
- Spíše vysoký
- Přiměřený
- Spíše nízký
- Velmi nízký

11) Přestárle a bezpečnost ohrožující stromy veřejné zeleně je třeba:

- Ihned kácet
- Zabezpečit proti pádu
- Nechat svému přirozenému vývoji

IV. - ZEMĚDĚLSTVÍ

12) Využívání zemědělské orné půdy (polí) považujete za:

- Velmi intenzivní (drancování)
- Převážně intenzivní
- Přiměřené
- Méně intenzivní
- Velmi málo intenzivní

13) Využívání neorané zemědělské půdy (luk a pastvin) považujete za:

- Velmi intenzivní (drancování)
- Převážně intenzivní
- Přiměřené
- Méně intenzivní
- Velmi málo intenzivní (nevyužívané)

14) Skladbu zemědělských hospodářských plodin na polích považujete za:

- Příliš ekonomicky motivovanou (introdukované plodiny, pro biopaliva, vyčerpání živin, přílišná chemizace)
- Nezbytný kompromis mezi ekonomikou a přírodou
- Přiměřený a dlouhodobě udržitelný přístup
- Nedostatečně ekonomicky motivovanou

15) Činnost zemědělců považujete za:

- Společnosti prospěšnou (potravinu)
- Přiměřenou přírodě i podnikání vlastníků či nájemců půdy
- Společnosti škodlivou

V. - LESNICTVÍ

16) Využívání lesní půdy, coby zdroje dřevní suroviny, považujete za:

- Velmi intenzivní (drancování)
- Převážně intenzivní
- Přiměřené
- Méně intenzivní
- Velmi málo intenzivní

17) Skladbu druhů lesních dřevin oproti ideálnímu stavu považujete za:

- Zbytečně příliš jehličnatou
- Spíše příliš jehličnatou
- Přiměřené množství jehličnatých i listnatých druhů
- Spíše příliš listnatou
- Zbytečně příliš listnatou

18) České lesy považujete za:

- Zbytečně příliš hospodářsky využívané a pozměněné činností člověka
- Převážně hospodářsky využívané
- Přiměřeně využívané
- Spíše přírodního rázu
- Zbytečně příliš ponechané působení přírody

19) Činnost lesníků považujete za:

- Veřejnosti prospěšnou (dřevo)
- Přiměřenou přírodě i podnikání vlastníků či nájemců půdy
- Veřejnosti škodlivou

VI. - MYSLIVOST**20) Myslivost vnímáte jako:**

- Péče o přírodní bohatství
- Smysluplné využívání přírodních zdrojů - zvěřiny
- Soukromý koníček v souladu se zájmy přírody a veřejnosti
- Soukromý koníček v rozporu se zájmy přírody a veřejnosti

21) Současnou formu myslivosti vnímáte jako:

- Pozitivní a prospěšnou
- Neutrální
- Negativní a škodlivou

22) Myslivost jako koníček by měla:

- Fungovat jako doposud
- Být více prospěšná přírodě a společnosti
- Takovouto myslivost zrušit a ponechat zvěř přirozenému vývoji

VII. - RYBAŘENÍ**23) Rybaření vnímáte jako:**

- Péče o přírodní bohatství
- Smysluplné využívání přírodních zdrojů – rybí maso
- Soukromý koníček v souladu se zájmy přírody a veřejnosti
- Soukromý koníček v rozporu se zájmy přírody a veřejnosti

24) Současnou podobu rybařství vnímáte jako:

- Pozitivní a prospěšnou
- Neutrální
- Negativní a škodlivou

25) Rybařství jako koníček by mělo:

- Fungovat jako dosud
- Být více prospěšné přírodě a veřejnosti
- Takovému rybařství zrušit a ponechat ryby přirozenému vývoji

VIII. - CHRÁNĚNÁ ÚZEMÍ (NP, CHKO, NPR, atd.)**26) Plocha chráněných území je:**

- Zbytečně vysoká
- Spíše vysoká
- Přiměřená
- Spíše nízká
- Velmi nízká

27) Stupeň ochrany v chráněných územích je obecně vzato:

- Zbytečně vysoký
- Spíše vysoký
- Přiměřený
- Spíše nízký
- Velmi nízký

28) Počet národních parků v ČR je:

- Zbytečně vysoký
- Spíše vysoký
- Přiměřený
- Spíše nízký
- Velmi nízký

IX. - PODPORA BIOENERGIÍ**29) Názor na využití dřeva coby zdroje energie:**

- Výrazně navýšit
- Mírně navýšit
- Ponechat stávající stav
- Mírně snížit
- Velmi výrazně snížit

30) Názor na využití řepky, kukuřice a jiných zem. plodin coby zdroje energie:

- Výrazně navýšit
- Mírně navýšit
- Ponechat stávající stav
- Mírně snížit
- Velmi výrazně snížit

31) Názor na budování solárních elektráren:

- Výrazně navýšit
- Mírně navýšit
- Ponechat stávající stav
- Mírně snížit
- Velmi výrazně snížit

32) Názor na budování větrných elektráren:

- Výrazně navýšit
- Mírně navýšit
- Ponechat stávající stav
- Mírně snížit
- Velmi výrazně snížit

X. - POBYT V PŘÍRODĚ**33) Frekvence pobytu v přírodě:**

- Vůbec
- Nepravdělně jen několikrát za rok
- Průměrně cca 1 – 3 x měsíčně
- Průměrně cca 1 – 2 x týdně
- Průměrně cca 3 – 4 x týdně
- Skoro každý den

34) Forma pobytu v přírodě:

- Pracovně
- Houbaření
- Cyklistika
- Běžky
- Kočárek
- Aktivně s dětmi
- Procházky
- Jiné -

35) Preferovaná krajina pro pobyt v přírodě:

- Lesnický obhospodařovaný les
- Divoký les
- Volná kulturní krajina
- Podíl lesa a volné krajiny
- Blízko vody
- Upravený park či veřejná zeleň