



LIFE RE-Vultures

Conservation of Black and Griffon vultures
in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901

SOCIOLOGICAL STUDY

The role of ecological activities for nature and biodiversity conservation
in the Eastern Rhodopes



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About the project:

This sociological study is developed under action D.4 Monitoring of the social impact of the project of the LIFE project Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains (LIFE Re-Vultures LIFE14NAT/NL/000901) funded by the European Commission. The project aims to reduce acute threats to black and griffon vultures and thus allow them to recover in the Bulgarian/Greek cross-border area of the Eastern Rhodope Mountains.





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901

Contents

I. Methodology	4
II. Sampling methodology	10
III. Carrying out the research and field work	13
IV. Summarizing the results of the study and preparing a report and analysis.....	13
Appendix 1 Questionnaire.....	49





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901

I. Methodology

Biodiversity is the living component of the environment and this determines the high importance of its conservation activities. Humanity itself is part of biodiversity and its existence would be impossible without the former. Quality of life, competitiveness in the economy, finding a job and security, they all rely on this natural resource. Biodiversity is key to “ecosystem services”, ie. the services that nature provides: regulation of climate, water and air, soil fertility and the production of food, fuel, fiber and medicines. It is of paramount importance for maintaining the long-term viability of agriculture and fisheries, and underpins many industrial productions and services. Therefore, the protection of biodiversity and the registration of possible risks requires compliance with several basic guidelines related to the study of public attitudes of the local community inhabiting the Eastern Rhodopes and in particular the municipalities: Ivaylovgrad, Madjarovo, Krumovgrad, Kardzhali and Momchilgrad.

The study should:

1. Provide the necessary information on the most important manifestations of risk that may affect the viability of different species to survive, including different environmental, economic, political and social aspects. Assessment of the implemented activities ensuring prevention and establishment of the acceptable risk thresholds, the violation of which will lead to real threats to biodiversity conservation.
2. Identification of the assessments by the local community for effective use of the existing programs, projects and institutions called to solve the tasks related to the protection of the ecological systems and the biodiversity.
3. Registers the personal attitudes regarding the involvement of the local key figures in the undertaken environmental initiatives and the degree of the registered public attitudes and evaluations of similar practices and the results achieved by them.
4. The monitoring of the activities carried out so far by the environmental organizations, state institutions and local and regional authorities for biodiversity conservation and the dissemination of the obtained results is important for the implementation of the monitoring for biodiversity conservation.





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901

The focus of the study is mainly on getting the answer to the following specific questions:

- Are the various structures involved in conservation activities for the conservation of griffon vultures working well so far?
- What is the public opinion about the activities for resettlement of game (red deer, fallow deer) and reintroduction of black vulture?
- Is there local support for the restoration of the black vulture in the Bulgarian part of the Eastern Rhodopes?
- What are the main threats to biodiversity and what is their prioritization?
- What is the public assessment of the level of understanding and awareness regarding nature conservation and biodiversity with a focus on conservation of griffon vultures and black vultures and attitudes towards the educational programme in local schools?
- What is the importance of the protection of vultures and biodiversity for the economic development of the region?
- Have attitudes been formed regarding the protection of nature and biodiversity - understanding and awareness, perceptions of the current situation, importance for the economic development of the region, individual attitudes towards conservation and desire to be included in future conservation initiatives?

The concept of the sociological survey takes into account these important issues for biodiversity and sets the following **main goal**:

To register in public opinion the importance of nature and the protection of vultures as part of the regional natural heritage, to describe the assessments of the activities carried out so far and to monitor the existing threats arising from human activity, as well as possible solutions leading to improvement of the environment in the region of the Eastern Rhodopes.

The study shares the understanding that the conservation of biological diversity is a vital and extremely important condition for the sustainability of natural systems. Only if we preserve our natural heritage will we be able to preserve the wealth of plants, animals and habitats for future generations. The culture of the local community is determined by its attitude towards nature and





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



biodiversity. Today, their protection is an absolute, vital necessity and one of the most important tasks of humanity.

The local community and its attitude are fundamental in this process, so their assessments and their involvement are crucial in the monitoring and especially in the future nature protection activities that will be carried out on the territory.

Based on the 100 surveys, the study will register the results achieved and will describe the role of the local population, the means of forming their ecological culture, identifying possible threats to biodiversity. The survey is direct, individual and includes 34 open and closed questions. The following were used: questions with a rating scale, questions with one or questions with more than one answer. The survey starts with questions that respondents would feel comfortable answering. Questions about personal information, demographic characteristics are placed at the end of the survey so as not to embarrass respondents. There are no questions about income and budget, which may also worry the respondents. In this way, respondents are prone to answer most of the questions included in the survey frankly and freely.

The questionnaire contains the following types of questions:

- *Filters*, which divide the studied subjects into groups or subgroups according to some possessed traits or factors;
- *Basic* - questions that fully and consistently cover the topic of the study;
- *Identification*, which examines the characteristics of the surveyed persons by main socio-demographic characteristics - gender, age, etc.
- *Controls*, which are used to reveal the objectivity of the information provided by the respondent.

The analysis of the results will cover the obtained two-dimensional distributions (through the so-called cross-tables) made through the statistical programme SPSS. In essence, two-dimensional distributions are a comparison of the answers to pairs of questions. The comparison is made in order to detect:

1) the level of awareness about the available biodiversity, about the undertaken activities and about the introduced curricula in the schools from the different social groups and the population by municipalities;





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



- 2) the specifics of the assessments, the differences in the attitudes towards nature protection initiatives of the different types of social groups and the population of the different municipalities;
- 3) differences in the attitudes of social groups towards future environmental initiatives;
- 4) readiness for personal participation in specific environmental initiatives.

Given the small sample, the emphasis in the analysis will be placed on the most significant data accumulations, on the basis of which reliable assumptions can be made about some trends in attitudes towards biodiversity and activities in the Eastern Rhodopes.

Based on the statistical data, an analysis will be prepared, which will trace, summarize and systematize the results of the survey, will present the problems and proposals for improving the environment, based on local identity and ecological heritage. The assessment of what has been done so far on the territory will be summarized. On the other hand, combining the results of the survey will provide opportunities for comparison of facts, different opinions, assessments and suggestions from stakeholders. Based on the generalized public opinion, important conclusions will be drawn, fully reflecting the existing social attitudes and registered problems related to the conservation of biodiversity in the Eastern Rhodopes.

The object of the study are the following social groups: forest workers, farmers, environmentalists, entrepreneurs, representatives of the non-governmental sector, representatives of local authorities, hunters, teachers and citizens living and working in the municipalities of Ivaylovgrad, Madjarovo, Krumovgrad, Kardzhali and Momchilgrad. These social groups mostly have the competence and capacity to answer the questions asked. In this way it will be possible to register and compare the different assessments of the ecological situation and the biodiversity in the region.

This will provide an opportunity for qualitative research in which participants determine their perceptions, opinions, beliefs and attitudes to environmental initiatives in the region, register the problems related to environmental protection, and at the same time register proposals leading to its improvement. The survey provides an opportunity for stakeholder representatives to express their views on the topic and to give their suggestions for creating appropriate conditions for active involvement of citizens and their organizations in biodiversity conservation.



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Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



In the region of the Eastern Rhodopes, where the habitats of griffon vultures predominate, the study formulates the following **hypotheses**:

- The positive attitude of the local population towards the conservation of biodiversity and in particular towards the iconic griffon vultures of their region prevails.
- There is **a need for more information** about the nature protection activities carried out on the territory by non-governmental organizations and institutions.

The consultation with the local community is a useful tool that creates preconditions for a deeper understanding of the environmental problems faced by the local community. Thus the survey:

- Provides an opportunity to confirm not only the previously identified problems and possible proposals, but also to register a set of difficult to predict facts;
- Targeted recruitment of respondents contributes to the inclusion of groups whose opinions are often unknown or excluded by the government;
- provides opportunities for the formation of a comprehensive assessment of the problems of the environment and biodiversity in the region of the Eastern Rhodopes.

Information processing:

The processing of the information will be performed by means of SPSS method for data processing and summary of the survey results. SPSS for Windows is a powerful tool for data manipulation and statistical analysis in a graphical environment. This tool is implemented through descriptive menus and simple dialogue menus, so as to satisfy a large part of the practical needs for statistical analysis of the collected data, regardless of the specific field of research.

The information collected and summarized from the present study will be used to develop an analysis of attitudes towards biodiversity conservation in the region of the Eastern Rhodopes. This is how the survey itself will be organized.



Organizational plan for conducting the sociological survey:

Activity:	Term:	Responsible person:
1. Development of a Research Methodology, a questionnaire	From 04.01.2021 to 26.01.2021	Key Expert
2. Printing of the questionnaires	From 27.01.2021 to 30.01.2021	Non-key Experts
3. Selection of interviewers and conducting the survey	From 31.01.2021 to 12.02.2021	Non-key Experts
4. Information processing with SPSS and formation of one-dimensional, two-dimensional tables and diagrams	From 13.02.2021 to 20.02.2021	Non-key Experts
5. Development of analysis	From 21.02.2021 to 12.03.2021	Non-key Experts
6. Translation into English	From 13.03.2021 to 27.03.2021	Key Expert

Through the set mechanisms and tools for feedback from the citizens, the implementation of the main goal and tasks of the research is planned.



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



II. Sampling methodology

The sample of the sociological survey presents the public opinion of the local community located on the territory of five municipalities in the Eastern Rhodopes: Ivaylovgrad, Madjarovo, Krumovgrad, Kardzhali and Momchilgrad. This population includes large social groups that are diverse in nature and differ in several respects: such as employment, work commitment to environmental activities, personal attitudes, values formed to protect biodiversity and inclusion in local environmental activities. This will reveal the common and different characteristics, trends and patterns in the studied groups / social groups / and will draw practical conclusions about the existing attitudes towards biodiversity in the region. The task is to use the sample to find the distribution of the elements of the studied population by selected characteristics, such as distribution by employment, education, gender, religion, place of residence, etc. The general aggregate is the population living on the territory of the five municipalities: Ivaylovgrad, Madzharovo, Krumovgrad, Kardzhali and Momchilgrad.

The study is monographic, as it studies individual units of the social groups of the general aggregate/population. They are selected typologically (based on the information gathered that they are specific to the whole study population). Those are: forest workers, farmers, environmentalists, entrepreneurs, representatives of the non-governmental sector, representatives of local authorities, hunters, teachers and citizens living and working in the municipalities of Ivaylovgrad, Madjarovo, Krumovgrad, Kardzhali and Momchilgrad. The units of the study are the individuals representing these social groups. Monographic research is usually used for emerging phenomena for which there is still little clarity, such as the monitoring of environmental initiatives ensuring the sustainable development of biodiversity in the region. The survey is a sample, and the data are summarized for the whole population, namely the population of these five municipalities. The survey reflects the opinion of the surveyed population by social groups and settlements.

The sample guarantees typological surveyed units, which are preliminarily divided into groups on the basis of the employment indicator and from each group its typical representatives are selected. In addition, 20 people are planned to be interviewed at the place of residence for each municipality. The assumption is that if the representatives of a given group have a certain





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



quality, which is average for the group, then they will possess the other qualities in the same average size.

After studying the representatives of these several social groups, this means that we can make summaries of the general aggregate/population without the survey being representative, because it is known in advance which units are an adequate source of information, of interest to us. Representativeness means that the summary information obtained for the surveyed units is close to the characteristics of the whole population, which in practice the survey is expected to perform.

It should be noted that the sample is reliable, ie. the degree of truthfulness of the collected information is ensured by the selected survey team, which guarantees the accuracy of the measurements and the answers of the surveyed persons.

Although the sample size is not large, the accuracy of the conclusions made for the general population can be guaranteed, as representatives of certain social groups that are sympathetic to the topic and largely shape the public opinion of the local community, will be surveyed. They are a source of knowledge and competent information. There is of course a connection between the three characteristics of the sample - representativeness, reliability and volume, which, however, is not direct and there is a possibility that the former exist separately.

The study provides for the analysis of different correlations and for monitoring the interdependent variables, which creates prerequisites for a thorough and reliable analysis. By establishing the statistical dependence between events and quantities, the degree of dependence between the different variables will be determined, which is important to follow, in order to establish the quantitative dependence between the different pairs of variables.

During the processing one or several characteristics of the studied objects will be “measured”, which will compare one number of the considered characteristic according to a predetermined rule. In most cases in the survey the result of the measurement has a specific quantitative meaning - number of points, evaluation, etc. In addition, the survey suggests situations in which we cannot obtain a numerical value, it will only indicate whether a property is present or absent. In these cases the measurement will be reduced to establishing the presence or absence of a certain feature in the object of the study. The inclusion of quantitative and qualitative variables will recreate public opinion in its completeness and diversity.





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



In every study there is always the so-called stochastic error resulting from the fact that only part of the units of the general population are studied. It is due to the action of random factors and has nothing to do with the accuracy of the registration. In this type of research, a 5% probability of error is usually assumed ($\alpha = 0,05$).

After the survey, the different answer options are counted and it is appropriate to arrange the data in tables and charts. The absolute (**number of answers to this question in this way - f**) and relative (**p**) frequencies of the answers for each of the variants are calculated. The chosen method requires that the relative frequencies be calculated in percentages.

The considered statistical methods give a quantitative idea of the differences in the opinions of the respondents. For the purposes of the present study, a qualitative interpretation of the data is also needed, which will be applied in parallel with the quantitative. It is related to the interpretation of the importance of accepting or rejecting statistical hypotheses, the magnitude of the established dependence or the established direction of the relationship, which is especially important for recording trends and making generalized conclusions.





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



III. Carrying out the research and field work

The study is the so-called “Field work” and includes the collection of data from all envisaged persons through the sociological method /a questionnaire /, chosen by the survey, by the survey team, consisting of five people, who will conduct the survey in each municipality. The main tool for the registration of primary empirical information is the questionnaire, which ensures the registration of valid (substantiated), accurate (sustainable) and reliable information. Each interviewer must select, according to the instructions, the representatives of the certain social groups and interview 20 of their representatives.

The field work is planned to be carried out in the period from 31.01.2021 to 12.02.2021 by interviewers well acquainted with the local community, which means that they must be carefully selected, taking into account their other qualities such as competence, responsibility and communication skills, to ensure the accuracy of the information.

IV. Summarizing the results of the study and preparing a report and analysis

The survey was conducted in the first half of February by local interviewers who know the local community well and were therefore able to select the appropriate respondents from the stakeholders. Stakeholders were examined under the initial hypothesis set in the terms of reference of the study, for the relevance of the project to the target groups of farmers, livestock breeders, hunters, private business, local administration and NGOs.

A total of 102 people were interviewed. In identifying stakeholders, the analysis examined the relationship between respondents' interest in the topics and proactive attitudes towards the project with the factors: geographical distribution, education, employment and gender. The expectations of the research team included defining the perceptions, attitudes and assessments of the stakeholders located in the Eastern Rhodopes about the nature of the environmental activities carried out on the territory, as well as the readiness of the key figures for involvement in such future initiatives, in accordance with the above factors.



Demographic characteristics are an important dividing line that must be taken into account when working in the field.

Distribution of respondents		Number	%
What is the field in which you work?	Livestock	8	7,8%
	Agriculture	6	5,9%
	Tourism	5	4,9%
	Local and state administration	39	38,2%
	Entrepreneurship	7	6,9%
	An employee in a private company	14	13,7%
	Unemployed	5	4,9%
	Other	18	17,6%
	Total	102	100%
Are you a hunter?	Yes, I am at the moment	15	14,7%
	Yes, I was, but I'm not right now	4	3,9%
	I'm not, but I would like to	4	3,9%
	I am not	79	77,5%
	Total	102	100%
You are:	A male	48	48%
	A female	52	52%
	Total	100	100%
What is your religion?	Christian	59	59%
	Muslim	37	37%
	Other	4	4%
	Total	100	100%
What education do you have?	Basic or lower education	9	8,8%
	Secondary education	38	37,3
	Higher education	55	53,9%
	Total	102	100%
Which municipality do you live in?	Kardzhali	20	19,6%
	Ivaylovgrad	20	19,6%
	Krumovgrad	22	21,6%
	Momchilgrad	20	19,6%
	Madzharovo	20	19,6%
	Total	102	100%

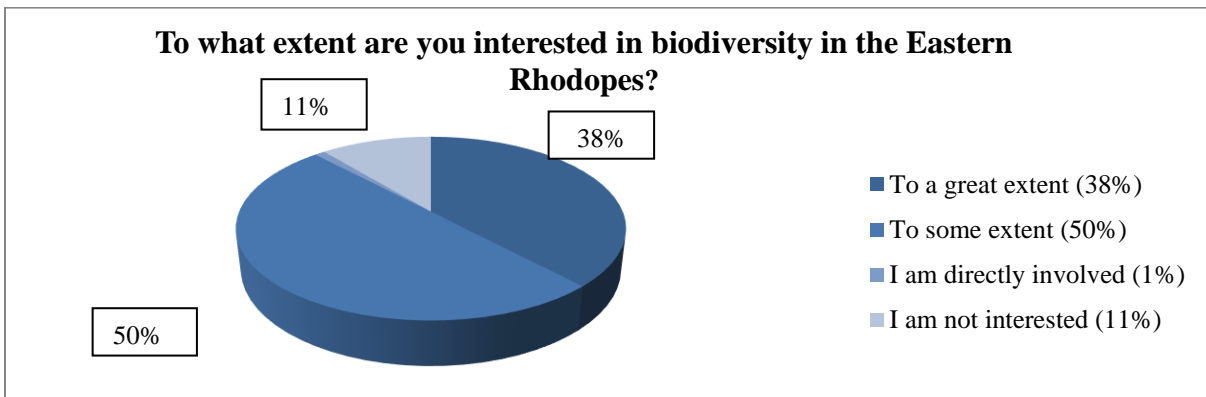
The largest share of respondents work in local and state administration, as in small municipalities this is the group of best informed citizens. The group of those who are not hunters also prevails, which corresponds to the real situation on the target territory. Men and women are almost equal. People with higher education also predominate, followed by those with secondary education, as competence and awareness on the topic are sought.

The geographical distribution of the respondents is as follows: 20 respondents are from Madzharovo and the surrounding villages, 20 respondents are from Ivaylovgrad municipality, 20 respondents from Kardzhali municipality, 20 from Momchilgrad municipality and 22

respondents from Krumovgrad municipality. The data from the surveys allow us to trace the differences by municipalities as well.

These are the general characteristics of the stakeholders living in the territory of the Eastern Rhodopes, who were included in the survey. They largely reflect the opinion of the local community and its commitment to the problems of biodiversity and its conservation.

The obtained summarized results show the respondents' interest in biodiversity in the Eastern Rhodopes and its conservation, which is especially important for future conservation activities and the involvement of the local community in the conservation of natural resources.

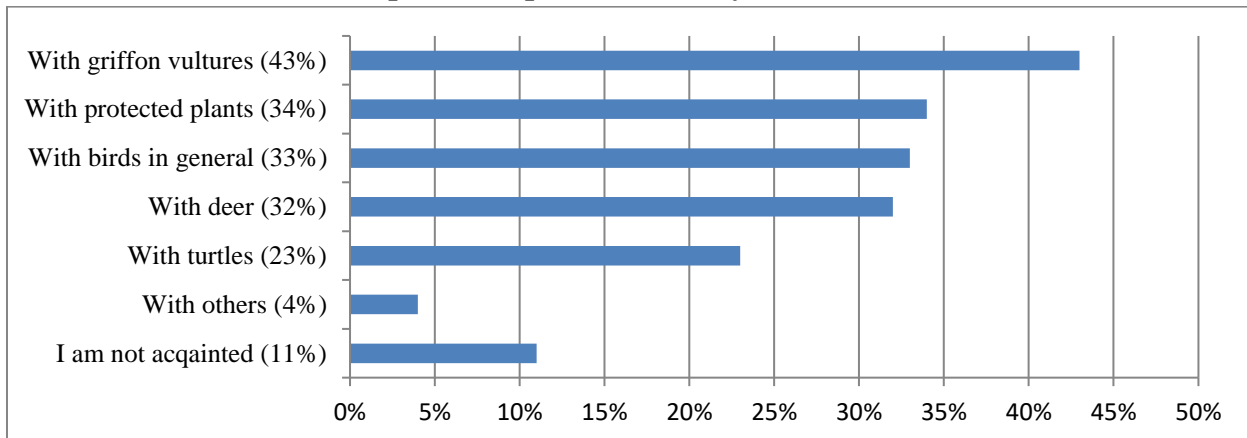


It is noteworthy that 50% of respondents are somewhat interested in biodiversity, as only a small part is involved in the implementation of this process - it is only - 1%. Adding the not a small relative share of those who are very interested, this is as much as 38 percent, which forms a very serious local potential of supporters, who are suitable for attracting them in various future environmental initiatives. The group of stakeholders is largely dominated by: agricultural workers, hunters, people with low educational status, which is difficult to explain, as a larger number of people with higher and secondary education were surveyed. The people living mainly in the municipalities: Ivaylovgrad / 60% /, Madjarovo / 50% / and Krumovgrad / 45% /, have a positive attitude. This is the group of people who are very interested in the topic of biodiversity. In Momchilgrad and Kardzhali, these percentages are much lower; they are only - 10% and 21%. The difference is mainly due to the purposeful and long-term activity of various environmental NGOs in the former 3 municipalities. The promotion of griffon vultures and their care have paid off. The realized long-term nature protection activities carried out in Ivaylovgrad, Madzharovo and Krumovgrad have turned the local population into a witness of a series of different

ecological initiatives, which cannot but impress the local people and necessarily form certain nature protection attitudes among the local community. In these municipalities, the care for griffon vultures predominates and therefore the latter are the best known species. There is no difference between the sexes among the supporters of the nature protection cause and the interest is evenly distributed by gender. In the municipalities of Kardzhali and Momchilgrad vultures are less common and that is why the people living there are not so interested in the topic. The analysis does not include respondents from the municipality of Stambolovo, where we expect similar results, as vultures are found there and various conservation initiatives have been implemented on the territory.

To the listed other protected species the awareness of the local community is gradually decreasing. The distribution of answers can be traced in the next question.

Which species of special care are you familiar with?

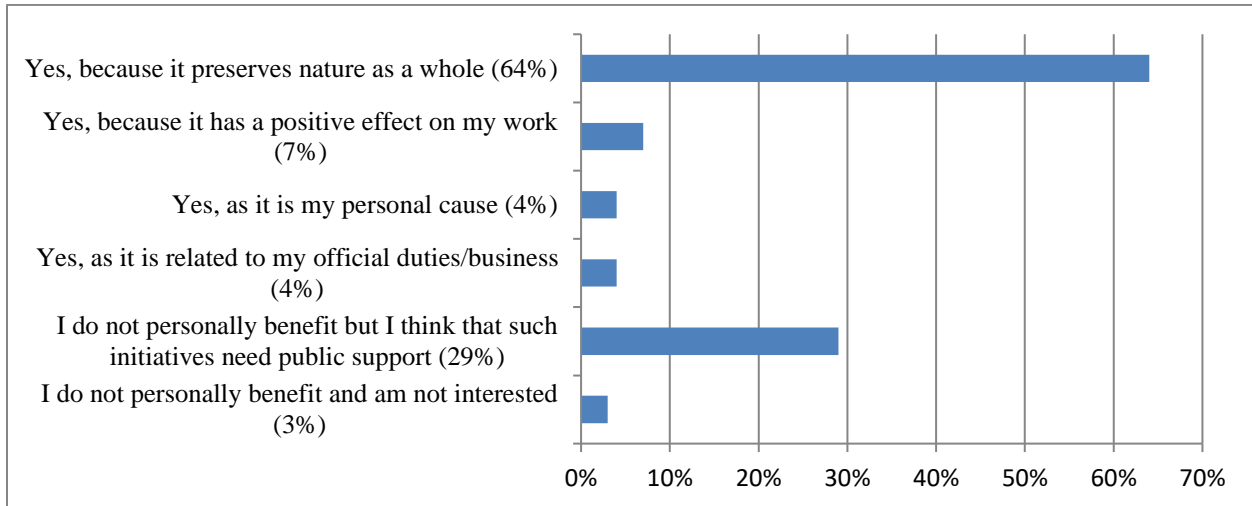


These data show that information on protected plants, other birds, deer and turtles are clearly scarcer because respondents are less familiar with these species and their conservation activities. Only 11% of the respondents do not know the local flora and fauna well. These are mainly the unemployed, people with lower educational status, men and those living in Momchilgrad municipality. It is noteworthy that in the municipality of Madjarovo there are no people unfamiliar with the problems of biodiversity and its conservation; on the contrary, everyone is sympathetic when it comes to nature conservation. The people living in the municipality of Kardzhali are mainly familiar with birds and deer. This is due to the fact that a large number of deer are located in the game breeding area “Studen Kladenets”, which is located near Kardzhali. The proximity of certain species is a condition for good awareness. In other municipalities this

activity is not so popular, as deer are not present on a large scale on the territory and their care is not so widespread. Tourists' interest in birds has also formed a certain interest in Momchilgrad and Kardzhali, but without being directly focused on certain species of birds.

The answers in the survey unequivocally show the great public support that is registered in the territory in terms of biodiversity and its protection. As many as 64% believe that nature conservation brings them personal benefits, and another 29% believe that such initiatives need public support, which makes an impressive total percentage of 93 percent. This is a definite answer to the formed mass attitude to support such activities by the local community.

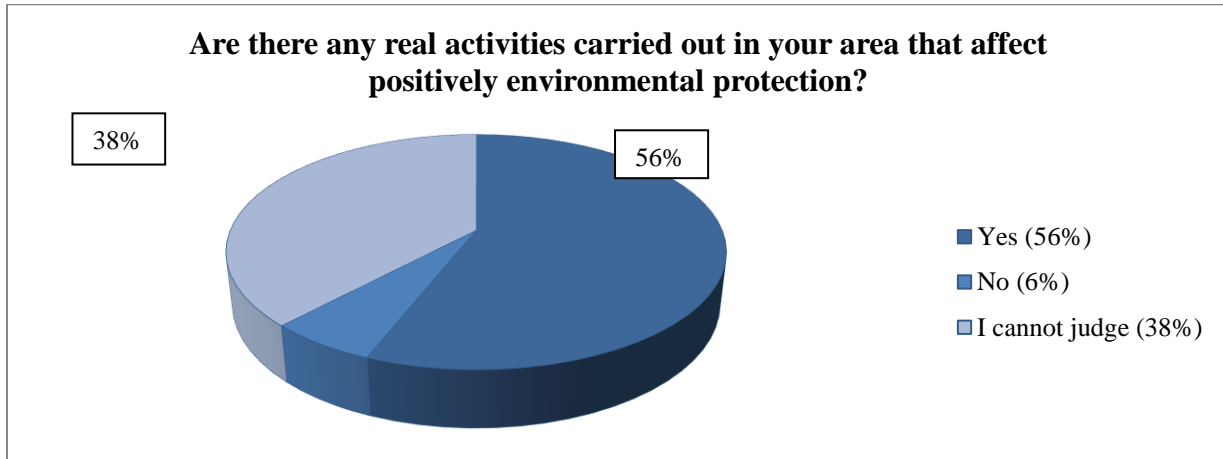
Do you have a specific personal benefit from taking measures to preserve biodiversity in the area?



From the answers given, it is clear that local people have realized that biodiversity is essential for human well-being, as it offers services that support modern economies and societies. Biodiversity is also crucial for ecosystems - the services provided by nature.

The tendency for personal benefit is most pronounced among those employed in agriculture and in the municipalities of Ivaylovgrad and Madjarovo. In recent years, a lot of effort has been spent on the formation of such attitudes by all stakeholders and a series of initiatives have been carried out that inform, persuade, attract attention and seek the support of the local population. To achieve this result, the most important is the implementation of real activities that have a positive effect on nature conservation. This is the opinion of 56% of the respondents and only 6% of

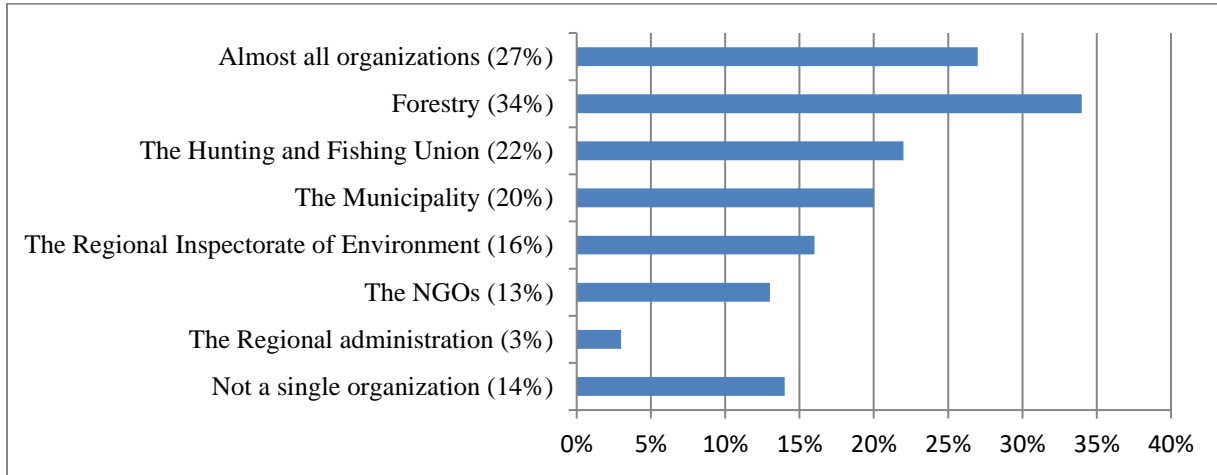
them claim that no real activities with a positive result on nature protection are carried out. The remaining 38% obviously cannot judge because they do not have the necessary information.



The effective activities with a positive result are carried out by various organizations, but according to respondents the most significant contribution with 34% have forestry, hunting and fishing unions with 22%, the municipality - 20%, RIEW with 16% and NGOs with 13%. The answers show that those structures that have local representation and are engaged in such activities are the most well-known and therefore they are defined as the most active, which does not always correspond to reality.

It is noteworthy that the survey indicates mainly the well-known local structures that perform similar functions, because for the respondents it means competence and knowledge of local problems. And everyone strives to show a good knowledge of the situation in the community. Respondents are not interested in details about the name of the specific contractor of a project; they are mainly interested in what is being done in their municipality and what is their personal and public interest in the results achieved.

Which organizations in your area have effective activities with a positive impact on environmental protection?



Those who deny the nature protection initiatives are 14% and their representatives are mainly entrepreneurs - 29% and unemployed - 20%, and their representatives live and work mainly in Kardzhali 21% and in Momchilgrad 20%. These data show that these two municipalities need to intensify environmental activities in different directions, through the use of different means of impact and awareness, mainly among entrepreneurs.

In all the answers it is clear that the situation in the municipality of Madjarovo differs significantly from the situation in other municipalities. In this area, despite the good knowledge of local structures, the role of forestry and hunting and fishing companies is not defined as a prominent conservation activity, while the activities of lesser-known NGOs are seriously supported and appreciated. Probably this is due to the long-term partnership and the implemented local initiatives by the Nature Conservation Center operating on the territory, managed by BSPB. Therefore, the existence of a local ecological structure and the regularly performed nature protection activities is a particularly important requirement for the efficiency of the activities and the achieved positive result for each territory. In this way, more is known about the implemented initiatives on the territory by the local people, because the former actions are monitored directly and the results achieved by them are evaluated to a greater extent. At the same time, well-known local organizations such as the forestry and the hunting and fishing society, which in other municipalities are highly valued, are not assessed as active by the local community in Madjarovo. All this speaks of a clear and objective assessment of the situation. As

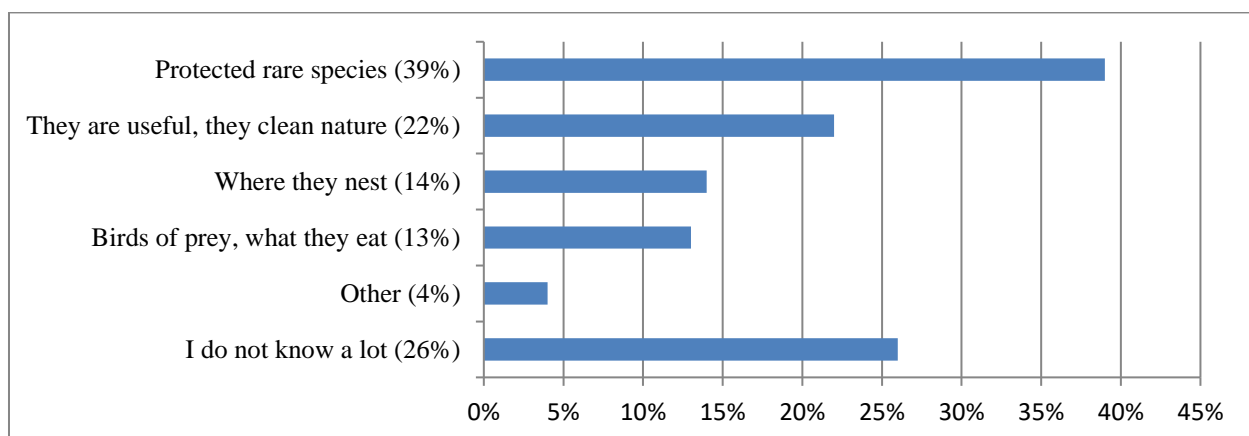
a result of the collected opinions it can be concluded that in the municipality of Madjarovo there are already conditions for a real comparison of the volume and quality of the actually performed activities by the different structures in the field of nature protection.

In order to achieve greater interest and mass in terms of biodiversity and its conservation, a more active exchange of experience and sharing of the results of practical and research work carried out on the territory, publicity and sharing of anxiety, concerns and positive experiences of members of NGOs is needed, and ensuring wider public participation in all processes. The deployment of nature protection activities and their integration will optimize the process, improve public awareness and improve the assessments of the results achieved by the implemented projects.

As well-known names of NGOs, the respondents listed: BSPB, Wilder Rhodopes, Green Balkans and the company “Nature Madjarovo” EOOD. It is noteworthy that the names of specific NGOs are known very vaguely by the respondents. It is obviously difficult to remember the names of the organizations, as they are mostly external, and the attention is focused mainly on what is being done at the local level and what are the consequences for the population. The answers to this question show that there is no serious interest in who exactly carries out the conservation activities.

Vultures and their way of life are relatively well known by the respondents. Respondents describe them as follows: they are a rare and protected species of birds, useful for nature because they clean it. These birds of prey feed on carrion and do not harm humans and animals. The given characteristic shows some knowledge and interest in the topic.

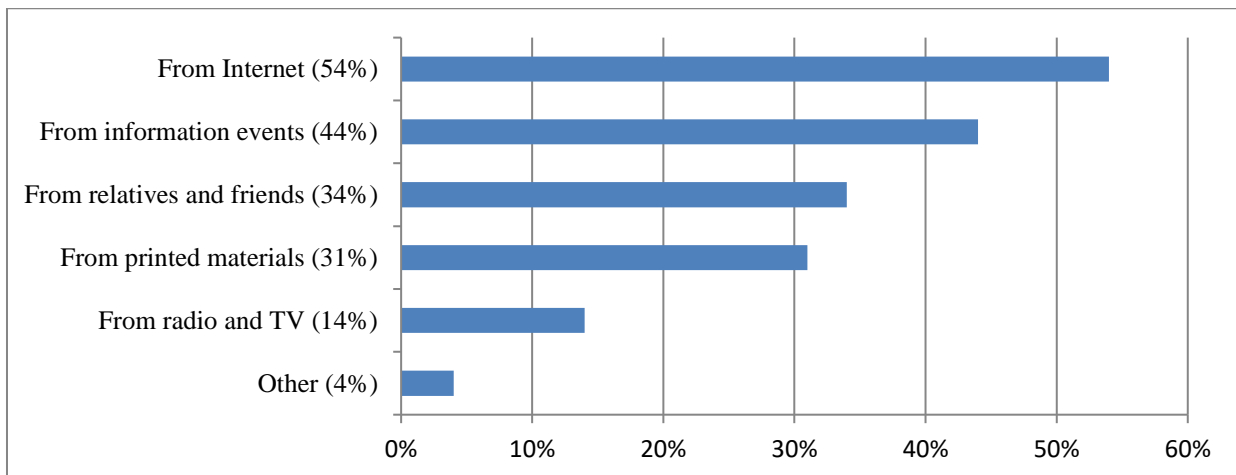
What do you know about vultures? (An open question)



26% of the respondents, who live mostly in the municipalities of Ivaylovgrad, Momchilgrad and Krumovgrad, do not know much about vultures. Those most familiar are again in Madjarovo. Those unfamiliar with the peculiarities of vultures are mostly from the group of entrepreneurs and the unemployed. Men are less familiar with vultures, which indicate a lower level of curiosity on their part on the topic of biodiversity.

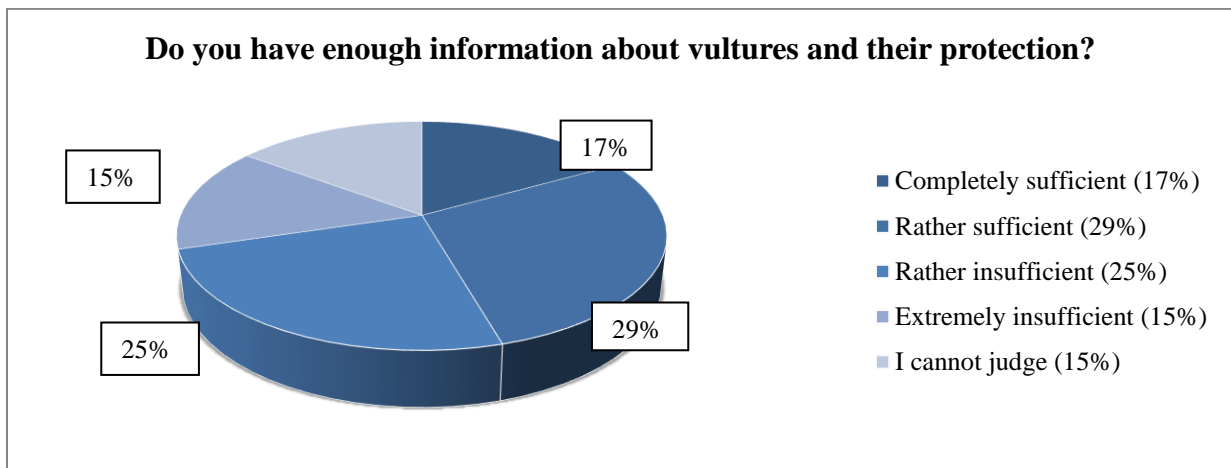
Citizens' awareness depends not only on the quantity and quality of information, but also to a large extent on the effective use of information sources. Therefore, the latter and their impact must be well known and used. The Internet is preferred by 54% of respondents and it holds the championship as the most used source of information. The former is followed by information events with 44%, by relatives and friends - 34% and by printed materials - 31%. The importance of radio and television is quite low, only - 14%.

How do you find out about the protection of vultures in your area?



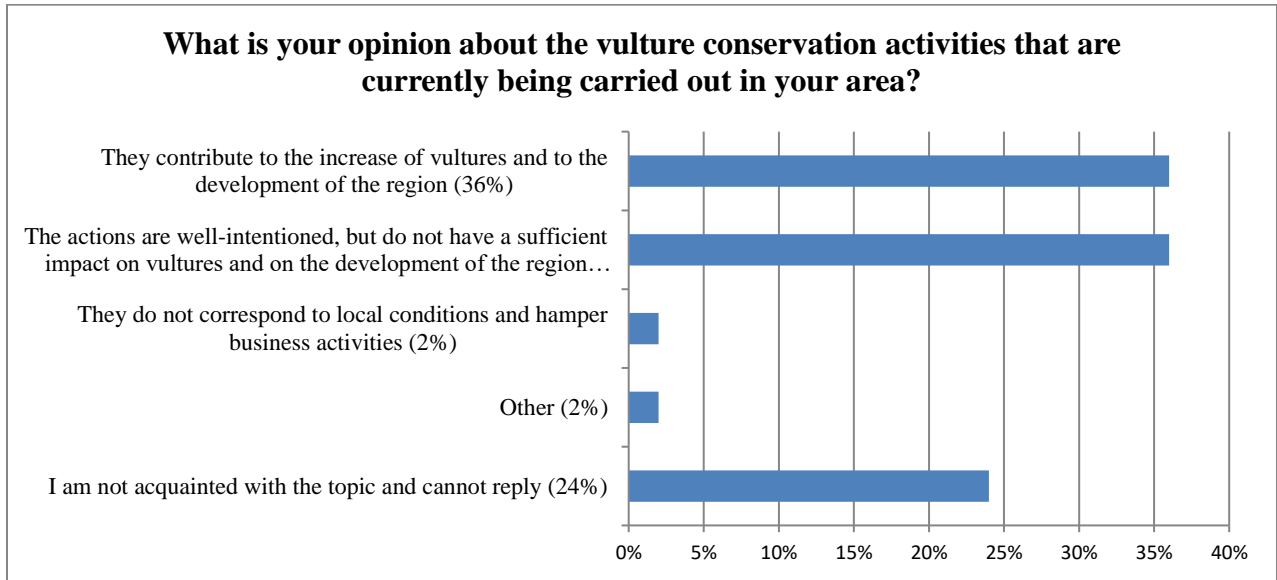
The Internet is a preferred source by people with higher and secondary education, while people with lower educational status are informed mainly by information events, followed by radio and television and by relatives and friends. In this case, it is important to use all types of information sources to cover a larger number of representatives from different social groups. Other sources that the respondents have additionally pointed out as important are the scientific articles, the Nature Protection Center “Eastern Rhodopes” and the visits and observations on the spot.

The information that reaches people is largely sufficient, as the total relative share of fully and partially informed is 46%. The information for 40% of the respondents is insufficient, and 15% cannot judge, which speaks of the partial knowledge of the problem. The summarized results show a moderate awareness, which speaks of a fairly large amount of work done on the territory and at the same time there is a clear need for its quantitative and qualitative expansion, integration of different information sources and its presentation in a way that meets the specifics of the respective social groups. The most uninformed are mainly people with low educational status, men, Muslims and people living in Momchilgrad municipality, who should be given special attention in future stakeholder initiatives.



Vulture conservation activities were assessed positively by a total of 72% of respondents, which can be seen in the following chart. The main supporters of this idea are in the municipality of Madjarovo - 70% and in the municipality of Ivaylovgrad - 50%, which fully confirms the findings and summaries made so far about the differences in the target municipalities. This group includes mainly: entrepreneurs, administration, tourism companies and farmers.

As many as 24% are unfamiliar with the topic, and another 2% believe that this care does not meet local conditions and hinders economic activity. This opinion is expressed mainly by the representatives of farmers and the unemployed, which is primarily due to their lack of information on the subject and ignorance of the real benefits and problems of environmental protection.



Here again, those unfamiliar with the problem are 24%, which shows the existence of a large number of stakeholders who need to be involved and more actively informed in the future. These are mainly the unemployed and those who are not hunters, as well as some of the agricultural producers, but mainly the representatives of this group live on the territory of Momchilgrad municipality and partly on the territory of Krumovgrad municipality.

It should be noted that in the activities carried out for the protection of vultures, some of these activities are not “visible” to the general public, especially if there is a lack of information and public awareness. The organized information meetings, seminars and clubs by places are not known to the general public. They include a limited number of stakeholders who have made some statements so far and have some interest in the issue. For example, activities such as anxiety reduction, poisoning (including lead) and the direct pursuit of vultures are particularly important for the conservation of biodiversity, but very few people learn about them. Organized nesting guards are often kept secret so as not to disturb the vultures and therefore remain unknown. The tracking of vultures is also carried out by a limited number of specialists, who do not always announce the results to the general public from these long and expensive activities, which require a lot of knowledge and expertise.

One of the common problems is the mortality of vultures from the power grid. The measures taken in this direction mainly concern the representatives of the nature protection organizations and the electricity distribution companies, for this reason they also remain unknown and underestimated by the population, if there is no organized special advertising campaign for this



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



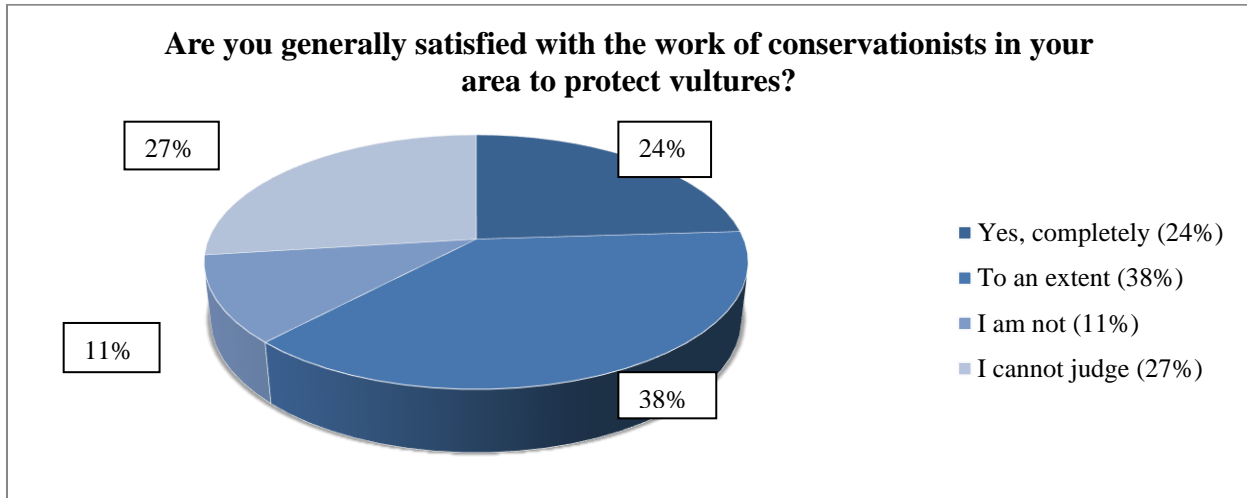
LIFE 14 NAT/NL/000901



purpose. All of the above measures, although particularly useful, require discretion and information of a limited number of people. Other conservation activities such as increasing the food base of vultures are more visible and therefore they are better known to local people. Such activities can be observed from the established hiding places, they are photographed by prominent photographers and specialists because they are interesting and attractive. In addition, when the business is related to vultures, then the visibility is more pronounced, as the interest of entrepreneurs is increased, and they are one of the most active local groups. For this purpose, it is important for NGOs located outside the territory of the Eastern Rhodopes to actively seek cooperation with municipalities and local structures. Networking and public support of the local community must be provided because they are especially important for the formation of positive public attitudes among the local population. Unfortunately, in a pandemic, these opportunities are severely hampered and limited and can rarely be actively exploited.

The rich palette of circumstances and requirements makes the satisfaction with the work of the environmentalists on the territory quite diverse and evasive. 24% of the respondents are fully satisfied, which by no means is a small percentage considering the specifics of the nature protection activities. As many as 38% of respondents are satisfied to an extent. They cannot judge - 27% and another 11% are not satisfied. All these results show a good awareness, but of a limited circle of the local community. In general, partial awareness prevails among the local population, and one third of the respondents are not informed at all about the work of environmental organizations or cannot judge, which indicates a lack of such information. 38% of the respondents are informed to an extent, and those who cannot judge are 27%. Only 11% are dissatisfied. This is a normal situation, as virtually not all people are interested in biodiversity conservation and not everyone can engage in such conservation activities.



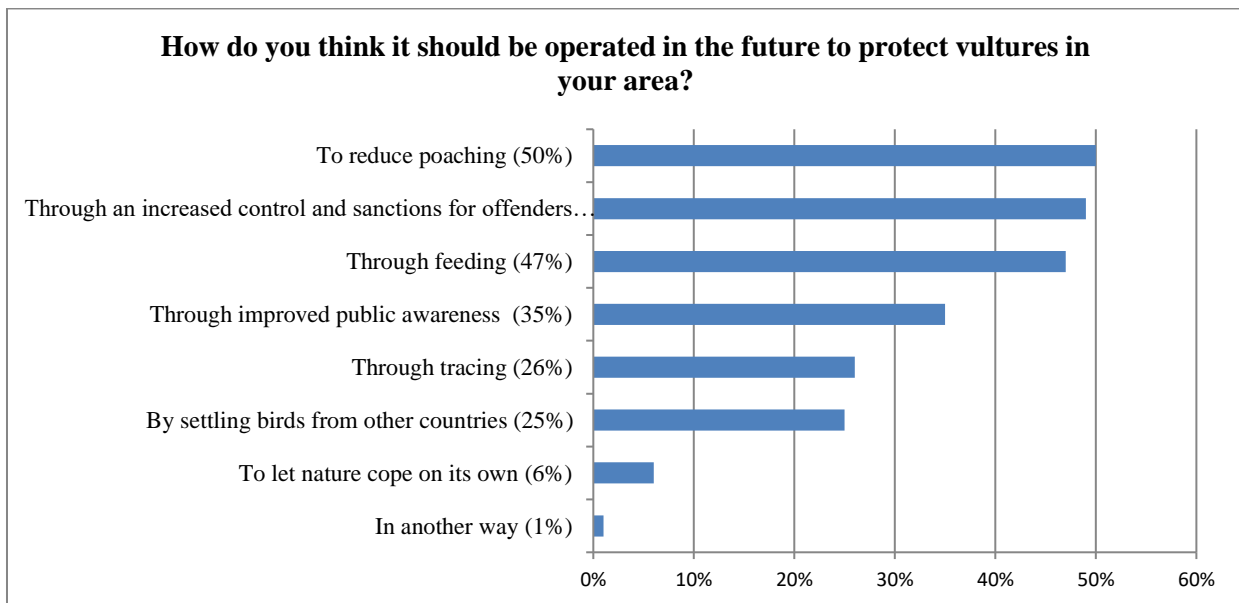


The presented picture of public opinion fully corresponds to the characteristics of environmental protection, which is very important, but not always visible and fully understandable to all members of the local community.

Restoring the populations of black and griffon vultures and supporting their further increase in the Rhodope Mountains in Greece and Bulgaria is a very difficult task, requiring complex and long-term care by conservationists. Moreover, maintaining stable and growing populations of black and griffon vultures is subject to a number of challenges and dangers that need to be minimized or eliminated altogether. Considering that black and griffon vultures roam the entire area covering the Eastern Rhodopes and Dadya in northern Greece in search of food, the task becomes quite difficult.

Poaching and the lack of sanctions for violators are the main obstacles to the protection of vultures in the territory. Another important activity leading to an increase in the population of black and griffon vultures is feeding, which must continue to be actively applied in the future in order to keep the pairs in the territory. In addition, other opportunities should be sought to increase the food base of vultures. Informing the population, tracking the movement of birds and settling new ones are important, but according to the respondents these are primarily complementary activities that should also be implemented, but the decisive thing is to stop the damages first and strengthen control over their expansion. However, the logic of connectivity speaks of the need to implement complex activities involving all possible care, initiatives and sanctions. The damage is caused mainly by the local population and therefore the latter must be informed and involved in the processes of conservation of vultures in order to become an integral

part of local support structures. The more a group of the local community is informed and involved in caring for vultures, the more effective public sanctions will be applied in practice. It is necessary to strengthen the controlling functions of the authorized state and public structures in order to improve the condition of the population as a whole. In addition, good coordination between local structures, municipalities and cross-border structures is needed to fully address the registered problems. Vultures move throughout the territory, so all stakeholders must work together to find solutions to the problems registered. Vultures are not and cannot be the concern of only one separate municipality, only one separate non-governmental organization, of a single Forestry or one Regional Inspectorate for Environment and Water. They are a comprehensive care and as such must be provided in partnership. Mechanisms must be sought to pool efforts and network. Even if there are registered problems in only one place, there will be problems with the overall survival of the species.

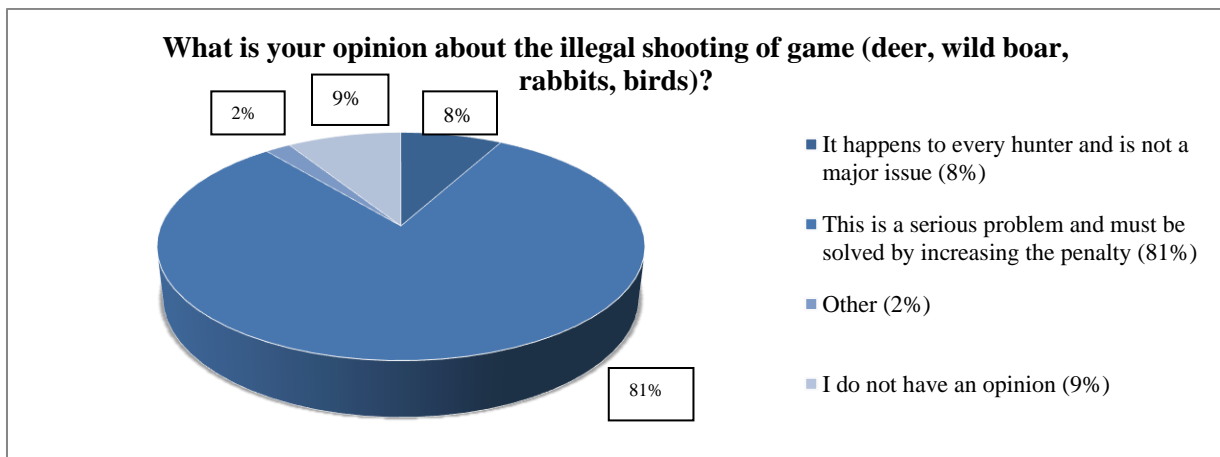


Vulture conservation activities carried out in the region contribute significantly to increasing the population of vultures, according to 36% of respondents. Another 36% of respondents said that the activities were well-intentioned, but did not have a sufficient impact on vultures in the area. Only 2% are of the opinion that the activities do not meet local conditions and hinder economic activity. All this shows a relatively good public environment supporting the conservation of

biodiversity in the region of the Eastern Rhodopes. Critics are mainly those living in Ivaylovgrad and Krumovgrad.

Question	Answers	%
What is your opinion about the activities for the protection of vultures that are currently being carried out in your area?	They contribute to the increase of vultures and the development of the area	36%
	The activities are well-intentioned, but do not have a sufficient impact on vultures and on the development of the area	36%
	They do not meet local conditions and hinder economic activity	2%
	Other	2%
	I am not familiar with the topic and I cannot answer	24%
	Total:	102

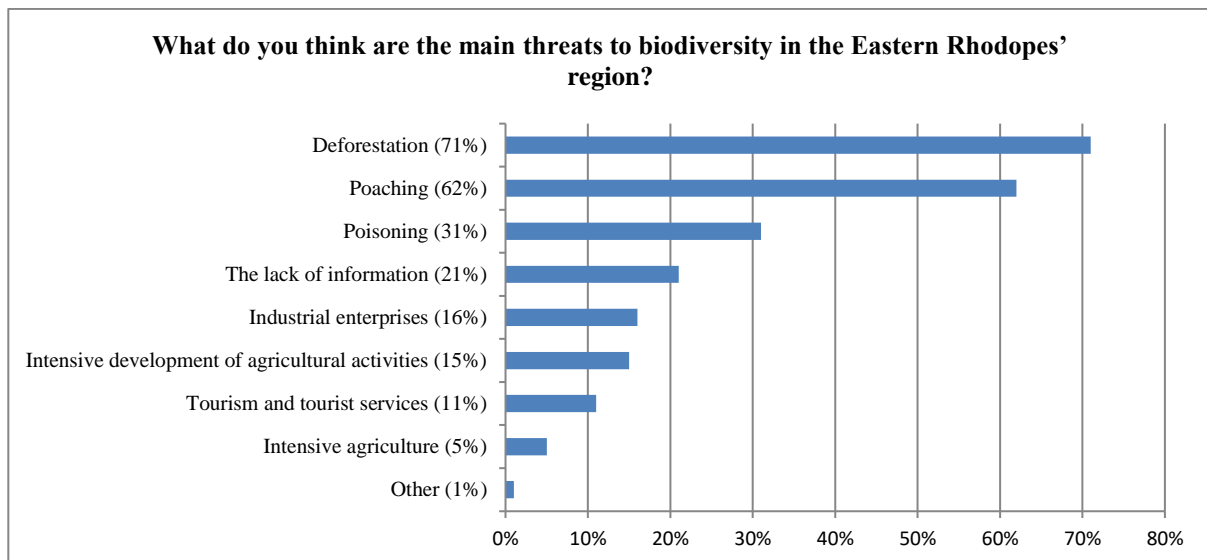
The answers to the following question confirm the views expressed above. Illegal shooting is a very serious problem according to 81% of respondents. That is why the work of conservation organizations with hunters needs to be expanded and diversified. Hunters need to be even more actively involved in the implementation of various conservation activities.



Threats to biodiversity in the Eastern Rhodopes are diverse and come from different directions, but local people are mainly concerned about deforestation and poaching, which they say are the most widespread. For 71% of the respondents, deforestation is a serious problem that worries them and that must be solved. Illegal deforestation mainly involves the felling of unmarked trees by persons who do not have a permit to cut in the forest, or the felled timber is stolen from temporary warehouses along clearings where work is currently being carried out. The felling of

unmarked trees most often occurs in easily accessible forests near settlements and along roads, but can also be observed in plantations that are used by third parties. Roma raids are often registered in the forests, but poaching is also found among those with a permit, as well as among the local population. All this makes a great need for the protection of forests in the Eastern Rhodopes.

The share of respondents for whom poaching is a very serious threat is also alarming, as it is claimed by as many as 62%. This result shows that this is a serious threat, which is repeated in several of the responses to the survey. In these cases, the role of hunting and fishing companies in particular is greatly reduced, as they often show some solidarity with violators. There is practically no control, and the sanctions, if applied accidentally, are quite low and have no deterrent effect. Therefore, in the future this problem must be paid quite serious attention and concrete actions must be taken both by the nature protection organizations and by the public structures and mainly by the local government, which often becomes a silent witness of such events.



The setting of poisons (31%), the lack of information (21%), industrial enterprises (16%) and the intensive development of agricultural activities (20%) should also not be neglected. Consumption of poisonous food is one of the main threats to the survival of species and especially vultures. The use of a variety of food sources makes them particularly vulnerable to this type of harmful effect. In search of food, vultures often visit landfills, which puts them at



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



risk of eating poisonous or contaminated food. Setting on predatory baits to fight predators is another serious problem that is most common in the region. In addition, the use of rodenticides and insecticides in agriculture affects rodents and insects, which are part of the vulture's diet. The toxins accumulated in these ways in the body of vultures can be lethal to them, so these possibilities must be carefully monitored and removed as soon as possible.

Another problem is related to the intensification of animal husbandry, which leads to the increasing use of antibiotics for the treatment of domestic animals, and the systematic intake by vultures of the former reduces vultures' immunity and sometimes leads to death.

Tourism and tourism services are much less of a threat to biodiversity in the region, but they must nevertheless be taken into account in the strategic development of the area in order to be able to plan preventive activities.

To the open question: **“Are there any problems with the protection of vultures in your area? If so, what are they?”** were given many answers, which show a civic concern and increased interest in the protection of vultures in the region. Here are some of the answers given:

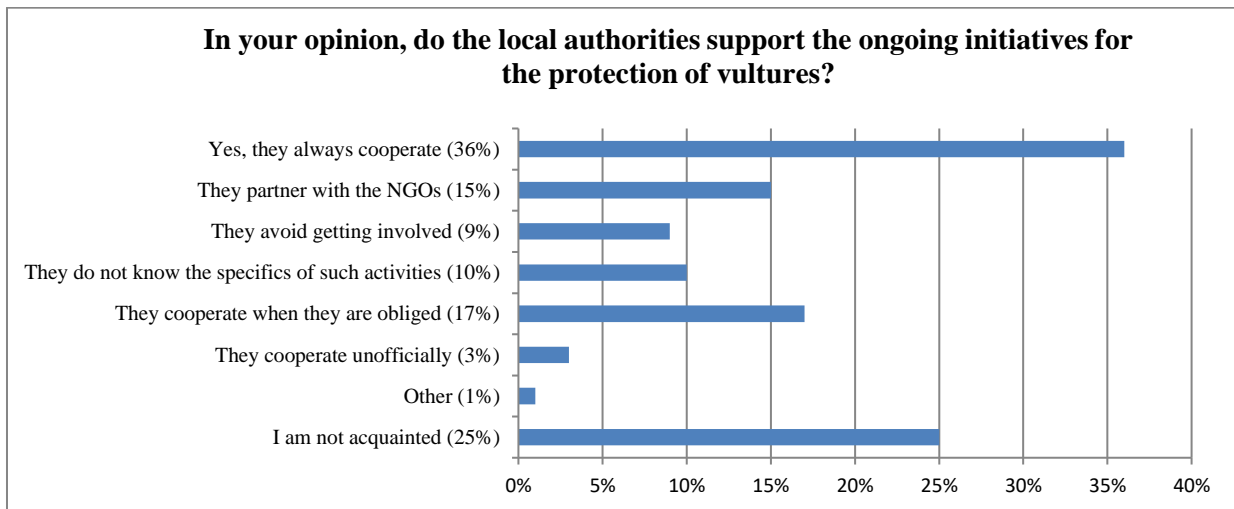
- Garbage that people throw is a problem for vultures;
- Deforestation and indiscriminate logging threaten vultures;
- Poachers and hunting activities are a threat, as hunters often shoot at vultures;
- There is a lack of sufficient information on the topic;
- There is lack of funds and support for the protection of vultures;
- The poisonous baits for wolves are a big threat;
- There must be severe penalties for poachers;
- Conservationists rarely come to the area;
- Corrupt local government racketeering businesses, NGOs do not give in to racketeering and do not give bribes and therefore will not receive the necessary permits and will not be able to work on the territory of the municipality;
- Vultures are often poisoned, and there are dead vultures from the power cords;
- The people who deal with vultures do not live in the area, which does not contribute to good relations with local people;
- Vultures in the area are not sufficiently fed;
- The data submitted by the satellite transmitters are not public;
- Data on the life of vultures are available to a small number of people and conservation activities are not coordinated with local businesses;



- I do not see concrete results to have been achieved.

These answers to the open-ended question show the main problems related to the protection of vultures and the existing dangers that the local choir has identified. At the same time, they show a common knowledge of the problem and concern, which is demonstrated by the respondents.

In principle, local authorities assist in the conservation of biological diversity, partner with NGOs or assist them informally. This opinion is shared by 54% of respondents, which is a positive trend. Assistance is only mandatory according to 17% of respondents. Local authorities do not know the specifics and avoid engaging, say 19 percent of respondents, which does not indicate their clear support in carrying out environmental activities. Most serious is the support for biodiversity by the local government in the municipality of Ivaylovgrad - according to 65% of the respondents in the municipality, and the smallest - 10% in the municipality of Kardzhali. In the other municipalities this support is 35%, which is insufficient for the registration of a real support from the local government.

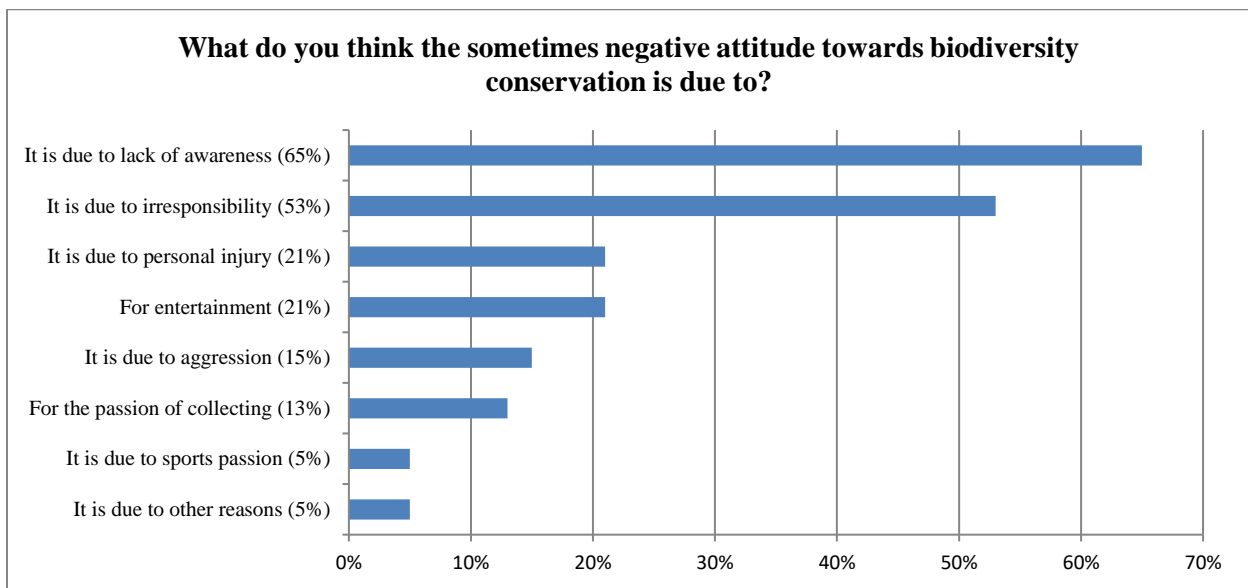


From the presented data it is clear that the local environmental organizations need to be further intensified with regard to:

- deforestation;
- the fight against poaching;
- the placement of poisons;
- safety of electric poles;
- expanding the dissemination of information;

- feeding vultures;
- the resettlement of deer in the other municipalities of the region except in the municipality of Kardzhali;
- building networks and partnerships with business and local structures.

The negative attitude towards biodiversity conservation is due to a number of different factors, but the most serious are: the lack of information, irresponsibility, personal damage and interest in entertainment. Many of the problems stem from aggression, collecting and sports passion. The group of those, harmful to biodiversity, although not large, is quite dangerous, because individuals can cause great damage, for which new opportunities must be sought to reduce and prevent the former. In the following diagram, you can trace the distribution of responses that form the most negative attitudes towards biodiversity conservation.



Another answer states that the damage is due to human viciousness, simplicity and lack of manners, which requires serious information and educational activities to change attitudes.

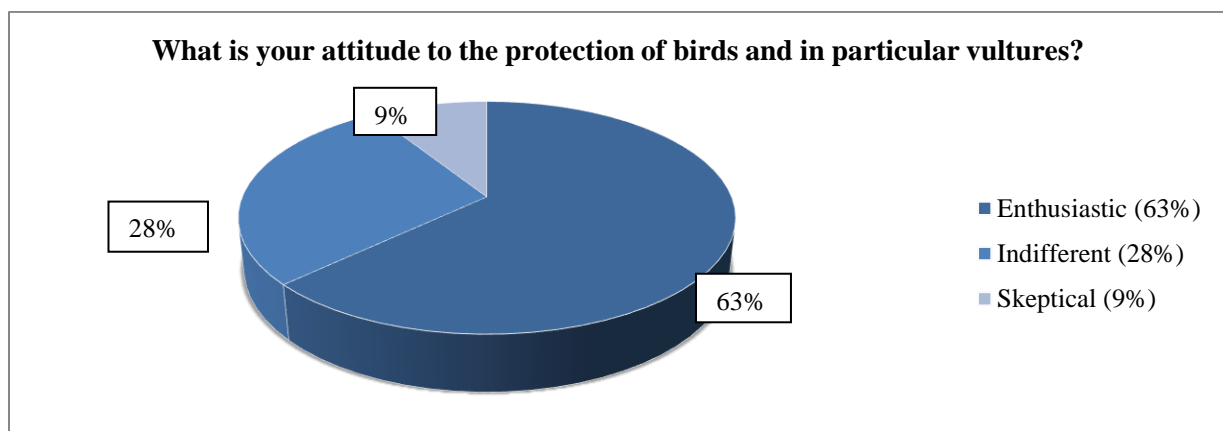
It follows from these data that the lack of information, although an important problem, can be much more easily compensated, but irresponsibility, self-interest and entertainment are due to established personal notions and value systems, which would need to be changed in a very difficult and continuous way. On the other hand, the peculiarities of one's character, including aggression, can hardly be solved. Collecting and sports passion are collective attitudes that can

change according to social values and established patterns of behaviour. This requires uniting the efforts of different institutions, active work and involvement of local people and the integration into practice of various environmental activities that lead to a positive outcome.

The protection of birds is especially important for the local community and for as many as 63% of the respondents it is not only a simple opportunity, but a goal that is enthusiastically supported.

This result speaks of the importance not only for the preservation of the population, but also for its increase and its great importance. The most enthusiastic supporters of this idea are in Ivaylovgrad, Krumovgrad and Madjarovo.

For 28%, the protection of vultures is accompanied by indifference and only for 9% the protection of vultures is viewed with skepticism. These opinions can be traced from the following diagram. The skeptics live mainly in Kardzhali, Krumovgrad and Madjarovo. The data show that in Madjarovo and Krumovgrad the opposing groups are more pronounced, which creates preconditions for future conflicts.

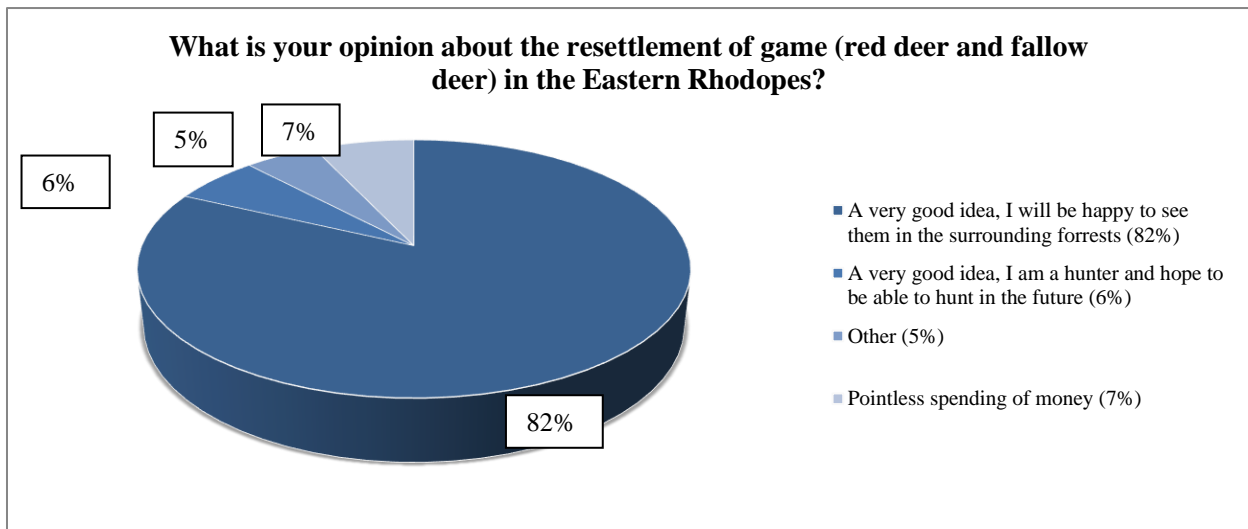


Comparing several consecutive answers to the previous questions, it becomes clear that the disinterested group regarding the protection of vultures is close to 1/3 of the respondents, which is a promising result in a pandemic, when public events are greatly reduced. Apparently, this is the result of the long-term activity of the whole set of interested structures, which have implemented various initiatives on the territory related to biodiversity conservation. Forming public opinion is not a one-time act, but a long-term process that requires hard work using different tools, an integrated approach and joint efforts of stakeholders on the territory. This

good foundation needs to be expanded and deepened in the future in order for the registered trend to become sustainable and to achieve even better results.

Regarding the resettlement of game (red deer and fallow deer) in the Eastern Rhodopes, there is widespread support for the idea. This idea is welcomed by 82% of respondents. 6% of respondents are hunters who hope for a good hunt in the future, which motivates them and increases their interest. The resettlement of the game aims to achieve a real effect on the recovery and stabilization of game stocks and this opportunity motivates, provokes interest and forms positive attitudes. Only 7% are convinced that this is a pointless waste of money.

Here is the detailed distribution of the answers expressing the opinion regarding the resettlement of game.



Increasing the number of deer and caring for them will help hunters become more diligent and responsible in caring for each species of game. Currently, the population of red deer in the Eastern Rhodopes is not evenly distributed in different municipalities, but is concentrated mainly in the municipality of Kardzhali. This creates preconditions for damaging the agricultural plantations in this territory. It would be reasonable to relocate the increased number of animals to other municipalities where there are no deer or they are less numerous. For this to happen in practice, a local initiative and a local structure is needed to realize this opportunity. This will increase the population of red deer and fallow deer over the entire territory of the Eastern Rhodopes. To this end, hunters must be actively involved and this task must become their



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



mission. In general, it turns out to be especially important for environmental NGOs to work closely with hunting teams. Hunters are those key local stakeholders on whom the conservation of endangered species largely depends. In addition to caring for game, hunters know poachers quite well, who are most often current or former hunters. In this way, they have more opportunities to control the former directly, because they know them and often know or guess about their ill-intentions. That is why the direct permanent connection and the joint work of the conservationists with these hunting structures are of crucial importance for the preservation of the biodiversity on the territory of the Eastern Rhodopes.

The largest is the percentage of those respondents, who have heard that there are conservation organizations that operate in the Eastern Rhodopes, but do not remember their names. That's as much as 49%. This fact suggests that conservation activities are being promoted, but the names of the organizations are difficult to remember, especially when the NGO is not local and its presence is for a short period of time, only within the implementation of a project. Beneficiaries meet with conservationists, hear who is financing and who is implementing the project, but do not always remember this information in the long run. In most cases, some of the activities are remembered and the environmentalists themselves are personally known, as they inform about the project and about the activities performed on the territory. If the environmentalists live and work in the region and appear in the implementation of other environmental projects, they are already perceived as sources of information and project opportunities. Their coordinates and their advice are sought, especially in case of a registered need. In the cases when the municipality is a partner of the NGO in a given project, the population is confused about the contractors even more and the understanding that the municipality is a beneficiary of the project begins to prevail. The external organization, which is unknown to the locals, is perceived as a consultant and its project activities are further neglected. All this makes it difficult to know specific NGOs working in the region, but this does not detract from their work and their efforts to preserve biodiversity.

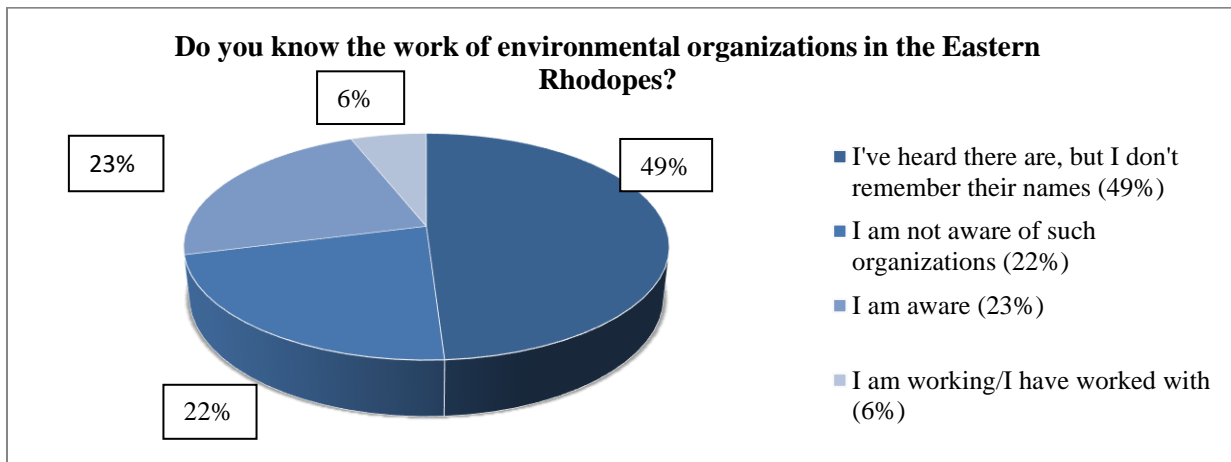
The following diagram shows the distribution of answers to the question: "Do you know the work of environmental organizations in the Eastern Rhodopes?"



VULTURE CONSERVATION FOUNDATION



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For the reasons listed above, most people have heard that there are various conservation organizations, but do not remember their names. This is most pronounced as a trend in the municipality of Ivaylovgrad, followed by the municipality of Kardzhali and the municipality of Krumovgrad, where various projects have been implemented, but the recognition of the names of non-governmental organizations is difficult.

23% of the respondents know such organizations, and another 6% have worked with them. This makes a total of 29% of respondents, which given the situation and the above problems is a pretty good indicator. These results are mostly related to the municipality of Madjarovo. Adding the fact that the group of those who do not know the work of non-governmental organizations is - 22%, it is clear that this is a relatively good recognition of the representatives of the third sector.

Respondents identify several conservation organizations working in the Eastern Rhodopes. Constantly present and sustainably implementing various project and other activities on the territory of the Eastern Rhodopes is the Bulgarian Society for the Protection of Birds / BSPB /. They are well known to the local people because they manage the Nature Protection Centre in Madjarovo and develop active current activities. They are followed by the Wilder Nature Foundation / the name of the Wilder Rhodopes is incorrectly written here / followed by: For Clean Rhodopes and Green Balkans. The following non-governmental organizations are known to a few people and these are: the company Priroda Madjarovo; the Fund for Wild Flora and Fauna (FWFF); Friends of the Rhodope Cows Foundation.



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



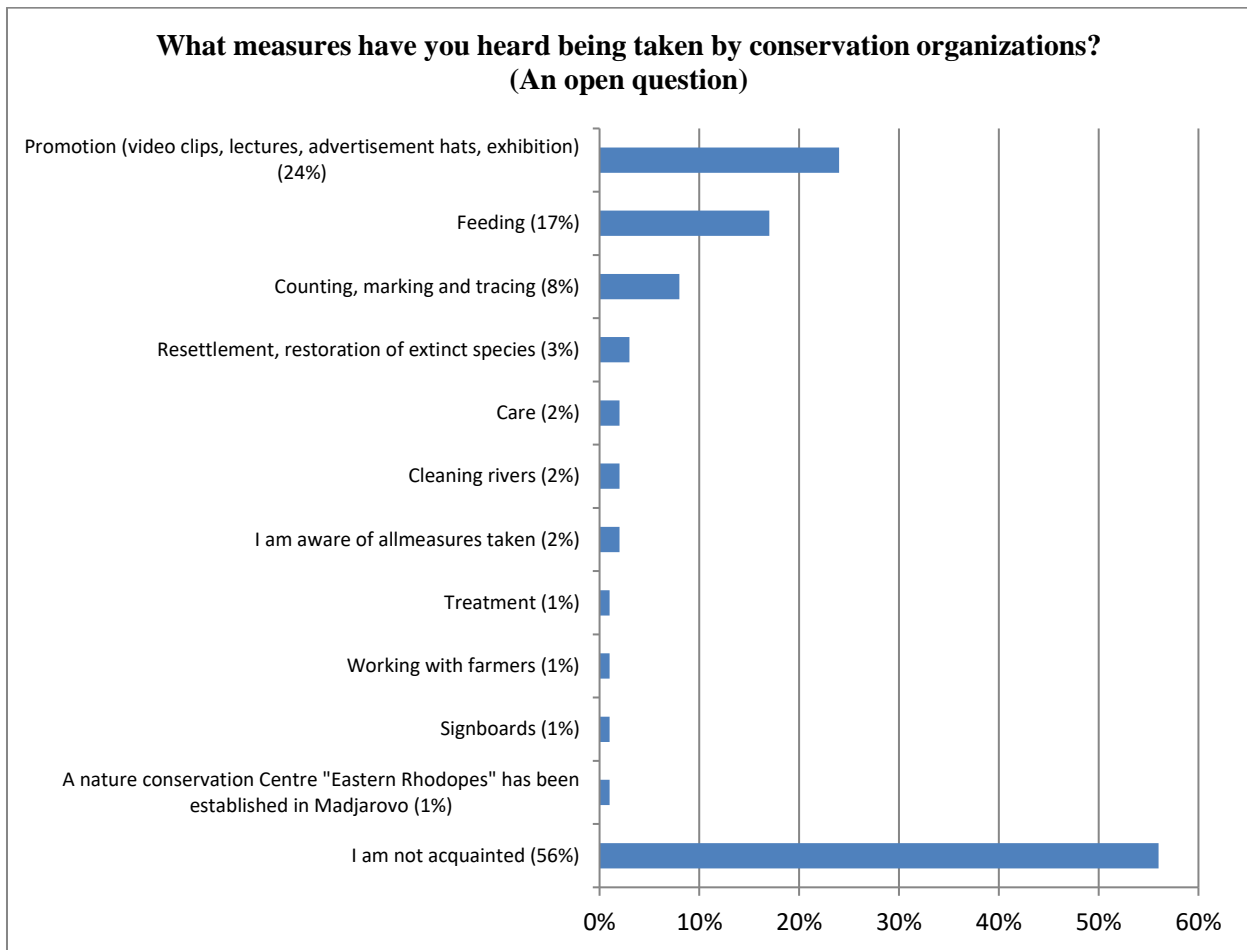
Municipalities and state structures such as forestry and RIEW are listed as active, which shows that no distinction is made between NGOs and state structures. District administrations are not recognized as actively working on biodiversity issues.

Stopping the loss of biodiversity and the degradation of ecosystem benefits in the Eastern Rhodopes, respectively, their restoration, as far as possible,

as well as increasing the contribution of conservation organizations to reduce biodiversity loss is essential for biodiversity conservation in the region. So far, what has been done on the territory is not insignificant and this conclusion is made on the basis of the established opinion that the measures implemented by the projects are better known by the respondents in comparison to the names of NGOs. Moreover, the answers are given to an open-ended question, which in most cases is omitted and does not receive the necessary attention from the respondents. The answers given to the open question show a relatively good awareness and confidence on the part of the respondents.

As many as 24% of the respondents know about lectures, videos and exhibitions because they have attended some of them. Another 17% know about feeding, 8% are aware of counting, marking and tracking, especially vultures. Other activities have a low relative share and show less knowledge. You can follow all this in the following diagram.

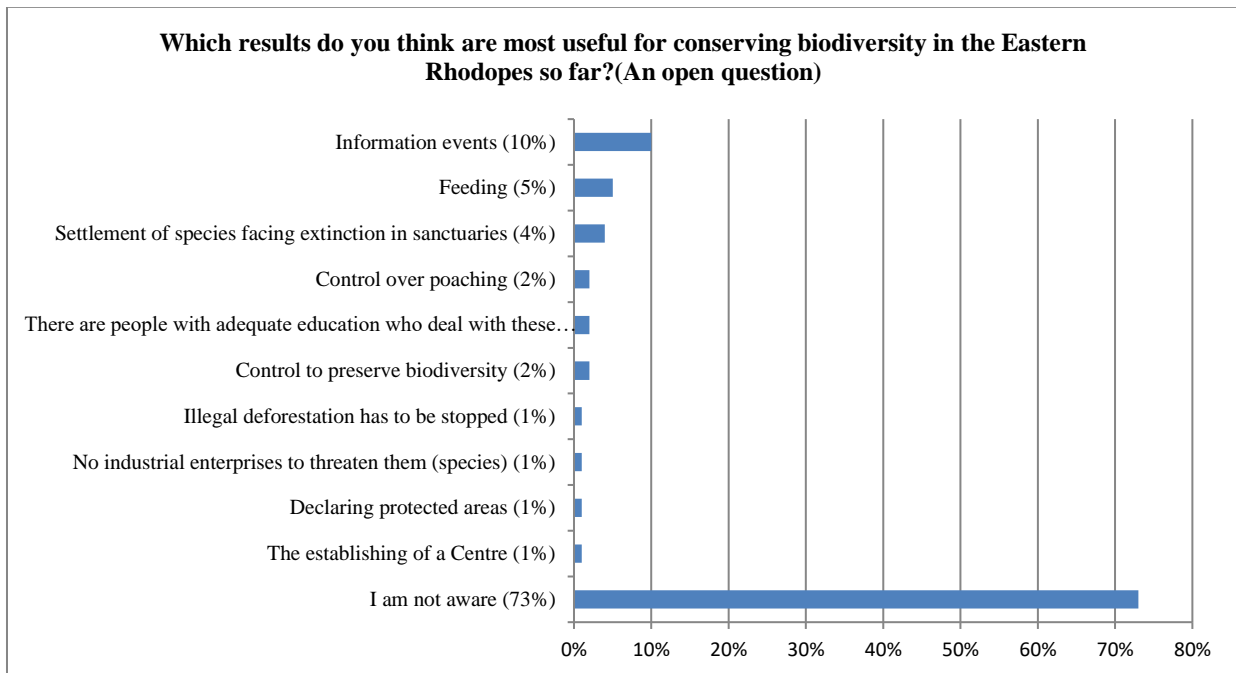




All these responses complement and confirm the above findings about the level of recognition of conservation activities by the local community and the interest shown in the protection of vultures and in the registered threats to that species.

The activities known so far are also the future activities recommended by the respondents, which is evident from the answers to the following open question: “Which results do you think are most useful for the conservation of biodiversity in the Eastern Rhodopes?”

According to the respondents, serious attention should be paid to: information events, feeding, resettlement (recovery) of endangered species, control of poaching and biodiversity. Despite the knowledge of the local community on the topic, there is a certain lack of reliable and easily accessible information, which can raise the public culture and consciousness to a higher level. In addition, the nature protection legislation and the effective observance of the ecological and nature-friendly administrative-legal measures and regulations are poorly applied and implemented; protected areas are inefficiently looked after and managed; regulated penalties, fines and sanctions prove ineffective and inapplicable.

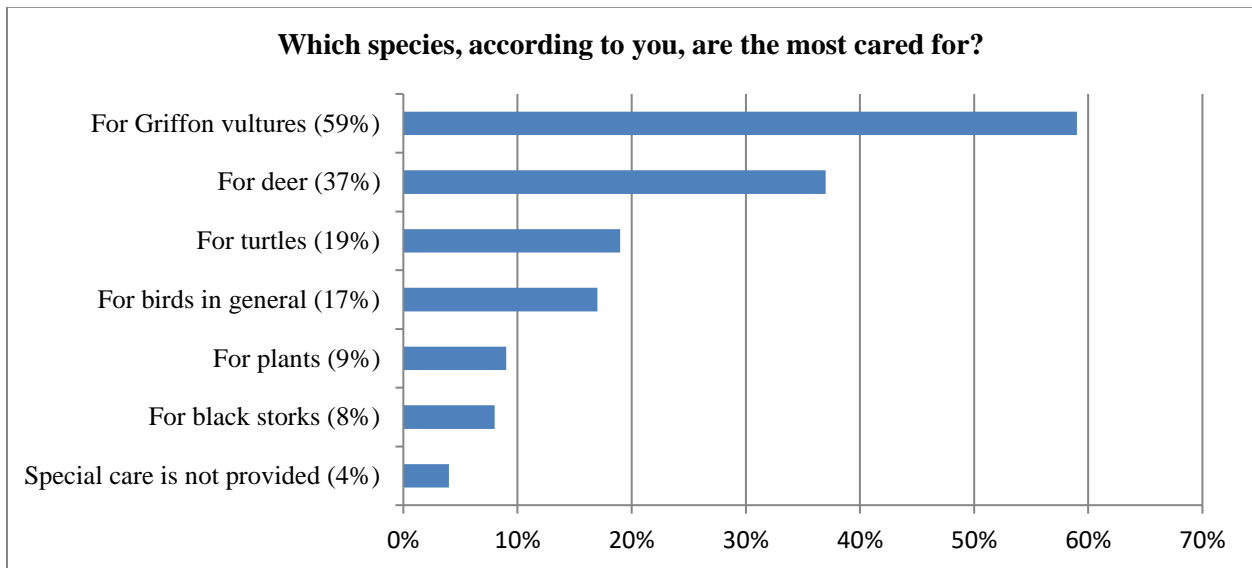


The declaration of protected areas and the creation of a center related to biodiversity are the other proposals that are not supported by a large number of respondents, as this area is less known to them. It is impressive that what is known and understood by the general public is offered, which is completely logical. Moreover, the existence of verification questions reaffirms this finding.

The biological species for which the most care is provided so far, according to the respondents, are:

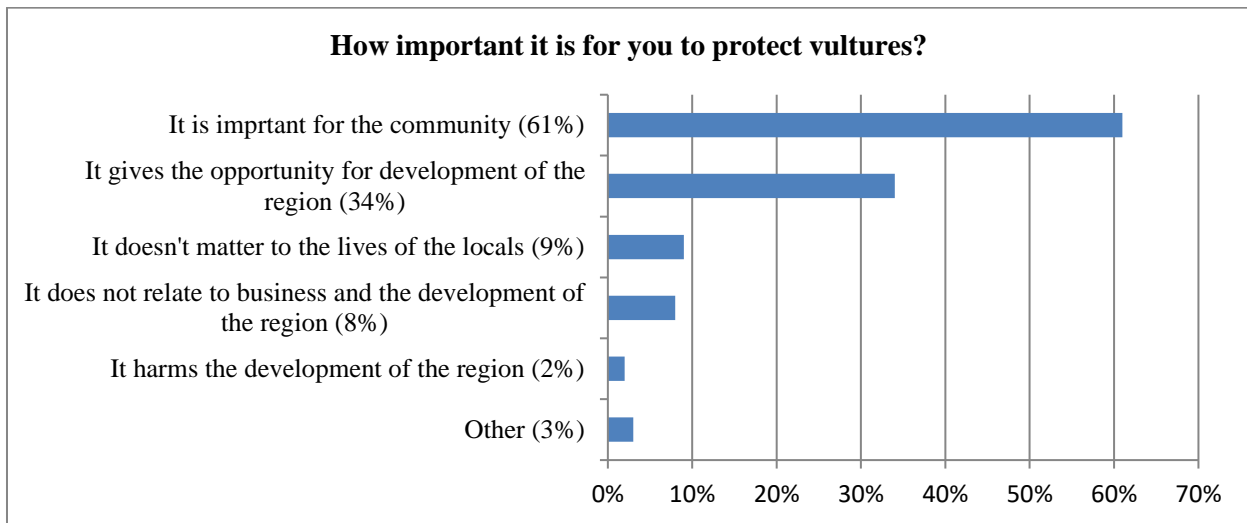
- Griffon vultures;
- Deer;
- Turtles;
- Birds in general;
- Plants;
- Black storks

Only 4% believe that no care is taken for the conservation of biological species. The assessment of the care for griffon vultures is quite impressive - as many as 59% support this opinion. The assessment of deer care is not small - 37%. These facts show that the complex activities providing care for the conservation of these two species make a strong impression on local people.



Conservation of vultures is definitely important for the local community. This is stated by 61% of respondents. Adding the opinion of 34% of respondents who believe that they provide an opportunity for the development of the area, it is clear that the prevailing public opinion is entirely positive about vultures and their protection, although some respondents gave both responses, indicating that their group is probably less than their total mechanical sum of 95%. On the other hand, we can judge more confidently from the size of the group of those who are not supporters of the protection of vultures, which is 13%. It includes 8% of those who answered “it has nothing to do with business and the development of the region”, 2% - “harm to the development of the region” and 3% - other. This dominant positive public opinion should be used more actively by NGOs to further attract local people and build local structures in the implementation of various environmental activities in the region. This will not only increase the involvement of the local community, but will also increase the relative share of biodiversity advocates and strengthen public control over the damage to species.

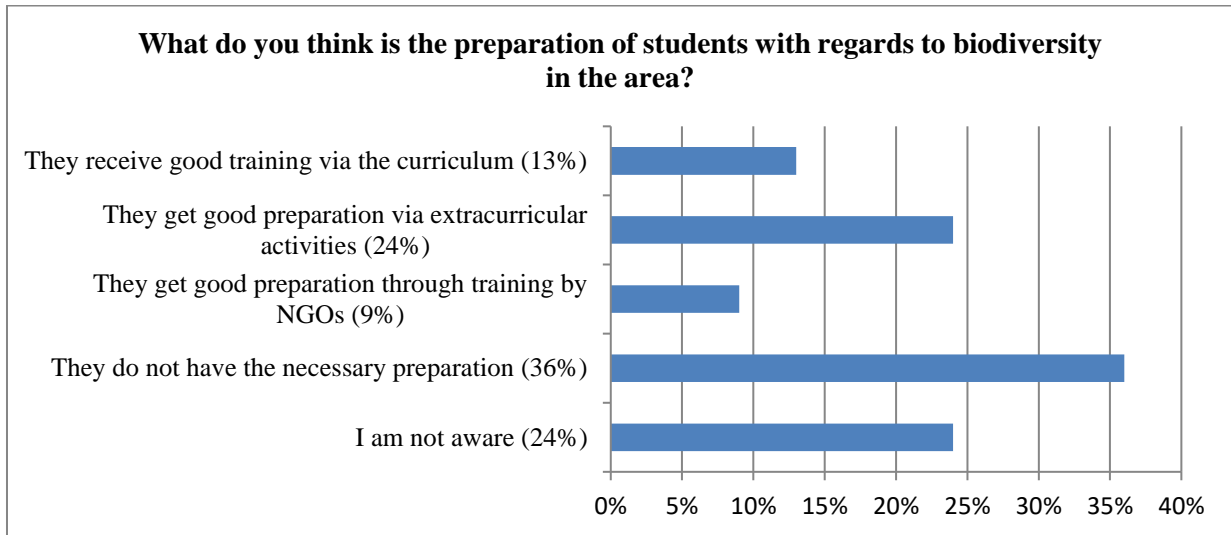
You can see how important the protection of vultures is for the local people in the following diagram.



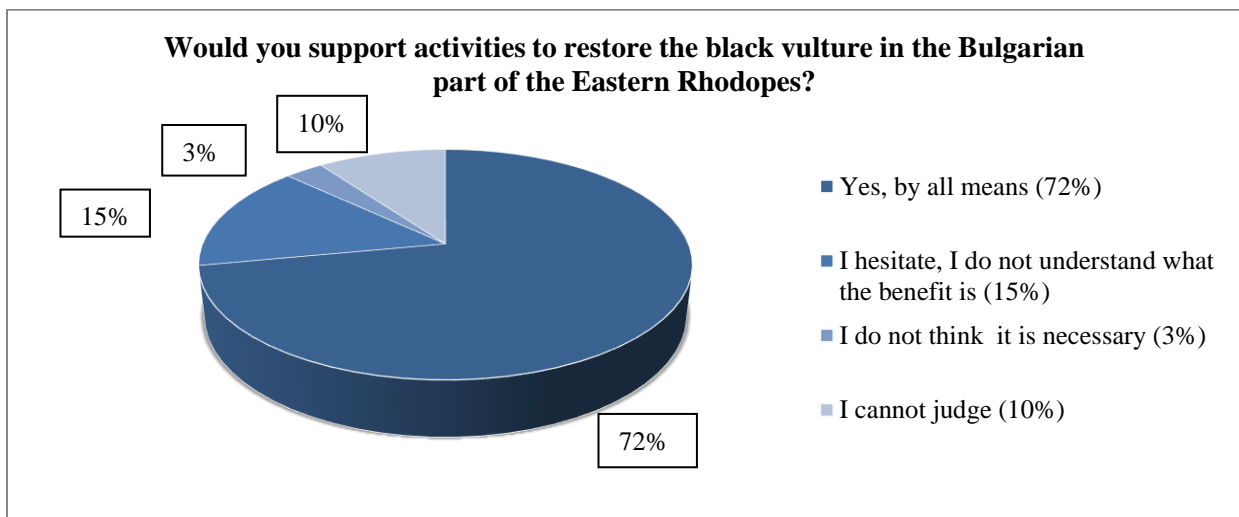
The characteristics of vultures show that they are species key to ecosystems in the Eastern Rhodopes. The term “umbrella species” refers to species whose conservation will significantly contribute to the conservation of other species that occur in the same habitats or have a similar lifestyle. Such are birds of prey, which also feed mainly on carrion, inhabit similar habitats and face threats similar to those of vultures (mainly poisoning). Protecting vultures also works for the protection and restoration of the deer, whose remains the vultures feed on. Such species are an indicator of preserved natural habitats. The problem is that the resettlement of deer does not develop in parallel in all places; the situation is the same with the support of breeding pairs of vultures outside the famous colonies registered in Madjarovo, Ivaylovgrad and Krumovgrad. These pairs are less common in the municipalities of Kardzhali and Momchilgrad and for this reason they are less known to the population inhabiting these areas. In order to have a greater effect, it is necessary for these two activities to be carried out in parallel in the same territory, although the vultures fly around the whole cross-border region and stay longer where they can find the food they need. In these cases, feeding is especially important for the longer-term presence of birds throughout the Eastern Rhodopes.

Young people are the future of the country and they will take care of the future development of the region, so their awareness and preparation for environmental activities is especially important. Unfortunately, 36% of respondents believe that at this stage students do not receive the necessary environmental training. This problem is especially important in a pandemic, when the learning process is severely hampered. Despite the problems, 24% of the respondents believe that in extracurricular activities students receive the necessary training. The training provided by

NGOs also contributes to their environmental education. Unfortunately, the achieved results are not enough to provide a serious competence among adolescents and it is necessary to work actively in the field of education of young people through various interactive methods.



The opinion regarding the restoration of the black vulture in the Bulgarian part of the Eastern Rhodopes is also positive. This was categorically stated by 72% of the respondents.



As we have already said above, it is impressive that public opinion is generally positive to different nature conservation activities, especially when the local community understands them and is aware of them. Activities unfamiliar to humans remain underestimated, so the training,



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



information meetings and advertising campaigns should focus on less popular conservation activities. They must be promoted in every possible way. In addition to exhibitions, it is good to make films, videos and presentations that are more impactful and memorable for the trainees. Tracking and their results, the dangers of electrical networks, the conservation of species and other activities seem to be hidden from the general public and are therefore less popular.

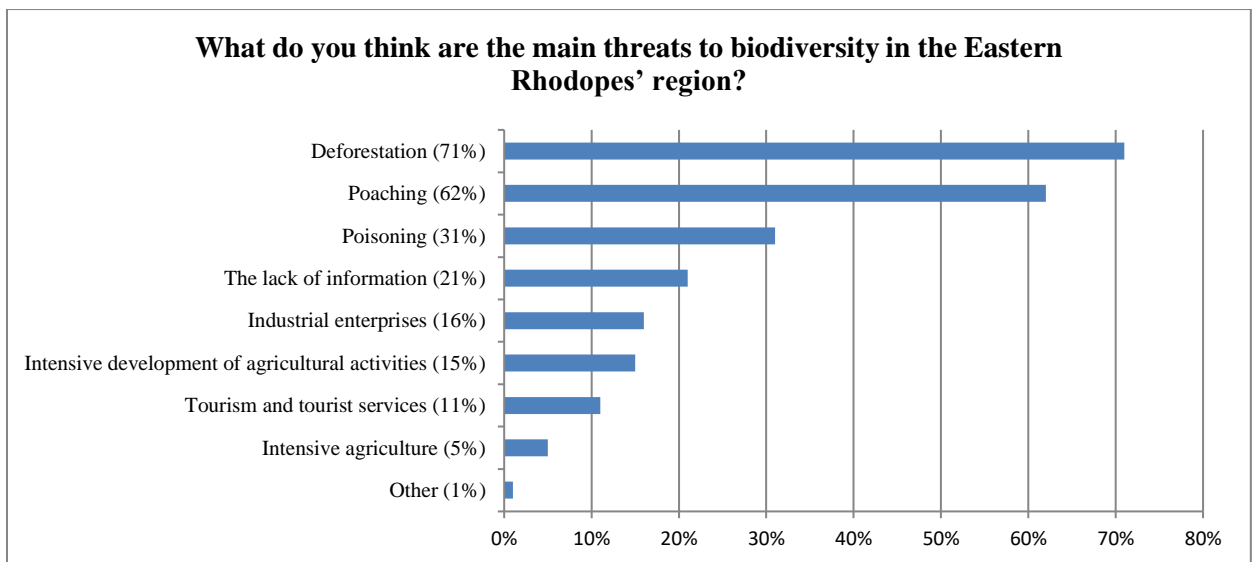
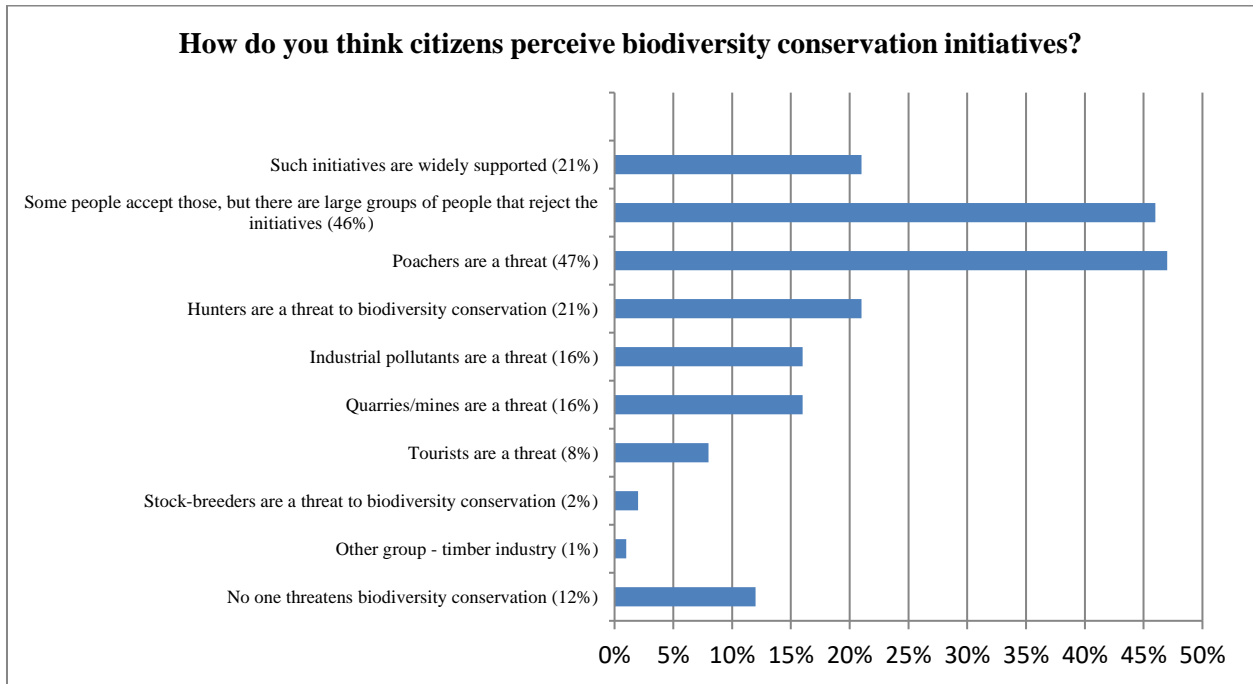
Citizens are relatively receptive to species conservation initiatives and competently assess threats to biodiversity. In the survey we have included two detectable questions, which are given relatively close and at the same time different answers to the threats. It is clear from the former that when the answers are formulated, they are indicated by the respondents and are assessed as threats, and when they are not formulated, they are omitted, even though they have already been indicated shortly before. These results indicate the lack of a clearly structured and established image of biodiversity and its conservation in the perceptions of the local population. When there is a clear version of the answers, the respondents reflect them, and when the wording is missing, they can hardly formulate them and the real existing threats are not indicated and cannot be prioritized. These are the following two questions: **“How do you think citizens perceive species conservation initiatives?”** and **“What do you think are the main threats to biodiversity in the Eastern Rhodopes region?”** / This latter issue is discussed in detail earlier in the text /.

These two questions are placed at a relatively large distance from each other in the questionnaire in order to link less, with some of the answers repeated and others deliberately omitted. In this way, the aim is to see if there are discrepancies in the opinions and assessments of the respondents regarding the threats. It is important for the research whether the former are unambiguously indicated by the respondents or depend mainly on the formulated answers. For example, in one question the answer for deforestation was omitted and this threat, although defined as predominant in the previous question, was omitted as a threat by the respondents in the next, when it is missing as an answer. Only one respondent, under option “another” has identified logging as a threat. A discrepancy is also registered in regard to the placement of poisons. However, poaching is confirmed in the answers to both questions, but it is formulated in both places. These results indicate the great dependence of the respondents on the wording of the answers and their difficulty in freely expressing their opinion and giving their assessment impartially, when there is no preliminary wording by the researchers. Respondents are more



likely to answer "yes" and "no" to these answers, and find it difficult to summarize and articulate the full range of threats they consider important.

The discrepancies can be traced and compared in detail in the following two diagrams.





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



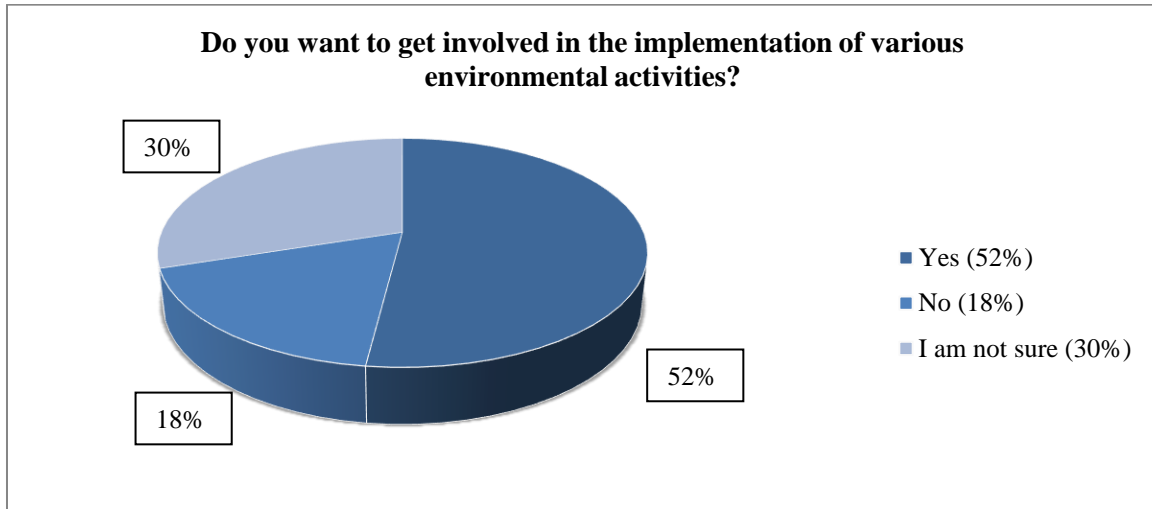
Despite the registered discrepancies in the answers, the following summary of the threats from the results can be made in the above diagrams and these are:

- Deforestation;
- poaching;
- Placement of poisons;
- Hunters;
- Quarries / mines
- Lack of information;
- manufacturing enterprises;
- The intensive development of agricultural activities;
- Breeders;
- Intensive agriculture;
- Tourism and tourist services.

The registration of discrepancies mentioned in the closed questions does not mean that they do not accurately reflect the answers of the respondents, although they are not repeated in the next question. This is primarily due to the fact that the respondents' perceptions of threats are not clearly structured and summarized. When poaching is repeated, industrial enterprises and tourism - too, the answers given are repeated. Poisons, hunters, quarries and agricultural activities that combine agriculture and animal husbandry register some discrepancies and gaps, although in the open questions some of them are further formulated as threats.

Despite the discrepancies in the threats, as many as 52% of the respondents want to be involved in the implementation of various environmental activities. 18% have no desire, and another 30% are not sure. These results are quite understandable given that not all respondents are actively interested in conservation, but nevertheless there are many who want to be active in this area.

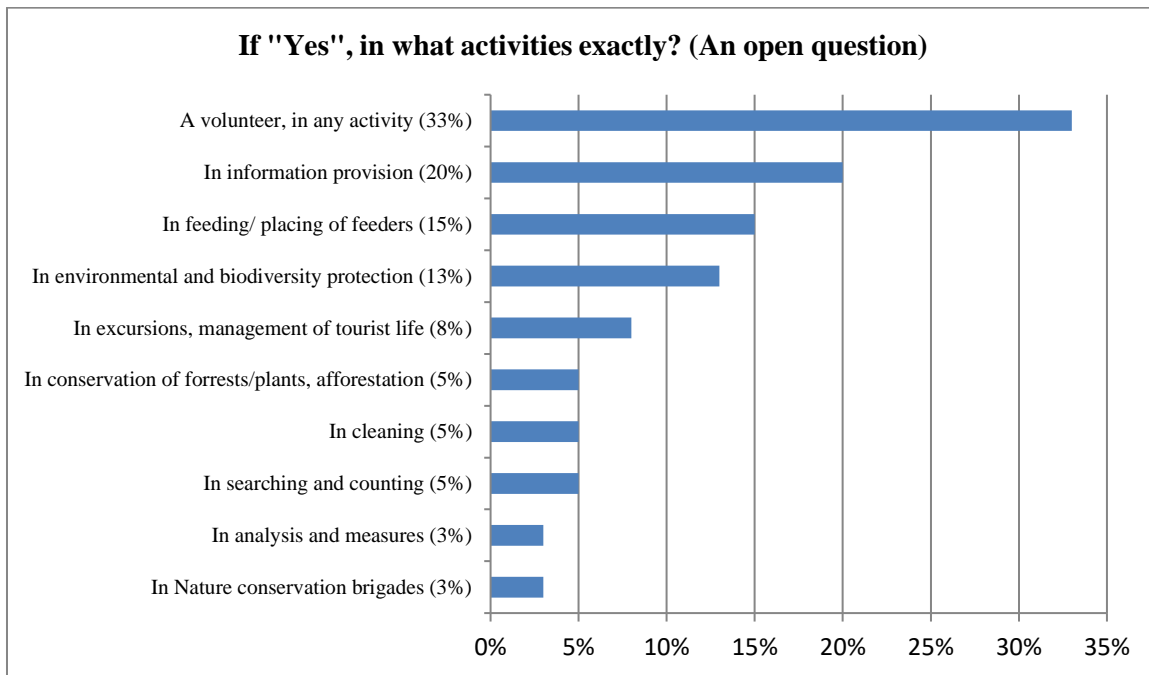




Positive public opinion and the desire to be involved in future conservation activities are a good prerequisite for the active implementation of various conservation activities in the Eastern Rhodopes.

As many as 33% of respondents agree to be volunteers, provided that this is an open question, which is a pretty good result. Volunteering can generally be defined as an altruistic activity that brings positive change to people, their communities and society as a whole. There are no less benefits for the volunteers themselves, because volunteering helps them to understand the world around them better and develops in them a number of valuable personal skills and qualities such as: communication skills; organizational skills; devotion and empathy; understanding and accepting diversity; positivism and hope for the future and mainly love of nature.

Another 20% agree to inform, 15% to nurture and 13% to work for environmental protection and biodiversity. There are also those who want to join some less popular measures.



The population in the target municipalities is connected to nature and lives close to nature, which is why its protection is so important for the former and for its way of life. Conservation activities are supported by the majority of the local community. There is also a large group of ill-wishers who intend to take advantage of animal species with impunity in any way, without complying with the restrictions and regulations.

The two hypotheses formulated in the study were fully confirmed by the results obtained in the survey:

- **The positive attitude of the local population towards the conservation of biodiversity** and in particular towards the iconic griffon vultures of their region prevails.
- **There is a need for more information** about the environmental activities carried out on the territory by non-governmental organizations and institutions.

The positive attitude of the population towards the conservation of biodiversity is registered by several questions, which register the assessments of the local community and the local attitudes for inclusion in the different types of nature protection activities.

Non-stakeholders account for about a third of respondents, while opponents of environmental initiatives are limited to around 8%. However, the representatives of this group can cause irreparable damage to biodiversity if they are not stopped, so the field work of



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



conservationists and ecologists is particularly important for the success of any environmental project implemented in the Eastern Rhodopes. One of the main means for changing attitudes is the awareness, for which the survey found a certain lack and at the same time it was assessed as particularly important, both among the adult population and among adolescents. One of the main means for changing attitudes is the awareness, which the survey found was partially lacking and at the same time it was assessed as particularly important, both among the adult population and among adolescents. According to respondents, informed people are less likely to harm nature and biodiversity. To this end, local environmental structures need to be set up and existing structures involved, especially local hunting parties, where the threat of poaching can be prevented to the greatest extent. Poachers most often have or have had contact with hunters, have weapons and often are hunting. Poisons, especially for wolves, are more often associated with breeders who place them to keep their herds. This problem must be addressed not only by using awareness, but also by other means of showing the real harm that such reckless actions cause. Involving search dogs is an additional way to solve part of the poison problem.

The results of the survey show that the main goal of the study has been achieved, namely:

“To register in public opinion the importance of nature and the protection of vultures as part of the regional natural heritage, to describe the assessments of the activities carried out so far and to monitor the existing threats arising from human activity, as well as possible solutions leading to the improvement of the ecological environment in the region of the Eastern Rhodopes”.

The study achieved the following results:

- 1). Public opinion is registered in great detail;
- 2). The assessments of the nature protection activities carried out so far in the region of the Eastern Rhodopes are described;
- 3). Existing threats arising from human activity are tracked and ranked by degree of danger.
- 4). Some of the possible solutions leading to the improvement of the ecological environment in the region of the Eastern Rhodopes have been registered.

The study unequivocally shows that people are increasingly aware that they must maintain harmony so as not to lose the wealth that nature has given them. The opportunity to preserve the griffon vulture population and the resettlement of black vultures on





LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901

the territory, as well as the resettlement of red deer and fallow deer are activities that are welcomed and supported by local people who are aware of the importance of species for the region's prosperity.

A total of 107 pairs of endangered griffon vultures in our country have been counted during the regular monitoring of the population of the species in the Arda River Valley by the experts of the Bulgarian Society for the Protection of Birds (BSPB) in 2021. The population of griffon vultures in the Eastern Rhodopes maintains its positive growth during the year not without the importance of the nature protection activities carried out in the field.

Compared to 2020, the population is growing on one territory at the moment, specifying that several more traditional nests remain to be checked and this number may increase in the coming months. The numbers of established pairs that have started to breed at the moment are 75, and the rest of the pairs repair and / or build their nests. In the coming months, the exact number of breeding pairs remains to be clarified. It is expected to receive information from conservationists about the number of pairs that nest in the Greek part of the Eastern Rhodopes, which also fly to the Bulgarian part. All this speaks of a serious long-term conservation activity on the territory of the Eastern Rhodopes, which not only needs to be continued, but needs to be expanded and deepened to include a growing number of local NGOs.





Appendix 1 Questionnaire

QUESTIONNAIRE

Dear Ladies and Gentlemen,

“Wilder Rhodopes” Foundation asks you to give your assessments of the conservation activities in your area for nature protection and in particular - of vultures. We rely on your objectivity.

The survey is anonymous. Please, do not enter your name!

THANK YOU FOR YOUR TIME!

1. To what extent are you interested in biodiversity in the Eastern Rhodopes?

- To a great extent..... 1
- To some extent..... 2
- I am directly involved 3
- I am not interested..... 4

2. Which species of special care are you familiar with?

- With griffon vultures 1
- With birds in general 2
- With protected plants 3
- With deer 4
- With turtles 5
- With others/which ones..... 6
- I am not acquainted

3. Do you have a specific personal benefit from taking measures to preserve biodiversity in the area?

- Yes, because it preserves nature as a whole 1
- Yes, because it has a positive effect on my work 2
- Yes, as it is my personal cause..... 3
- Yes, as it is related to my official duties/business 4
- I do not personally benefit but I think that such initiatives need public support 5
- I do not personally benefit and am not interested 6

4. Are there any real activities carried out in your area that affect positively environmental protection?

- Yes 1
- No 2
- I cannot judge 3





5. Which organizations in your area have effective activities with a positive impact on environmental protection?

- The activities of almost all organizations are effective 1
- The activities of the RIE are effective 2
- The activities of the forestry are effective 3
- The activities of the Hunting and Fishing Union are effective 4
- The activities of the NGOs are effective 5
(Please, count them if you are aware of their names)
- The activities of the Municipality are effective 6
- The activities of the Regional administration are effective 7
- The activities of none organization are effective 8

6. What do you know about vultures? (Please, specify)

.....
.....

7. How do you find out about the protection of vultures in your area? (Please, indicate up to 3 answers)

- From relatives and friends..... 1
- From the Internet 2
- From radio and TV 3
- From printed materials 4
- From information events 5
- Other 6
(Please, specify)

8. Do you have enough information about vultures and their protection?

- The information about vultures is completely sufficient 1
- The information about vultures is rather sufficient 2
- The information about vultures is rather insufficient 3
- The information about vultures is extremely insufficient 4
- I cannot judge 5

9. What is your opinion about the vulture conservation activities that are currently being carried out in your area?

- They contribute to the increase of vultures and to the development of the region 1
- The actions are well-intentioned, but do not have a sufficient impact on vultures and on the development of the region 2
- They do not correspond to local conditions and hamper business activities 3
- Other/what?/ 4



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- I am not acquainted with the topic and cannot reply

5

10. Are you generally satisfied with the work of conservationists in your area to protect vultures?

- Yes, completely 1
- To an extent 2
- I am not 3

- I cannot judge 4

11. Are there any problems with the protection of vultures in your area? If so, what are they?

.....

.....

12. How do you think it should be operated in the future to protect vultures in your area? (Please indicate any correct answer)

- By settling birds from other countries 1
- To reduce poaching 2
- Through feeding 3
- Through tracing 4
- Through an increased control and sanctions for offenders 5
- Through improved public awareness 6
- To let nature cope on its own 7
- In another way/what?/ 8

13. What is your attitude to the protection of birds and in particular vultures?

- Enthusiastic 1
- Indifferent 2
- Skeptical 3
- Negative 4

14. What is your opinion about the illegal shooting of game (deer, wild boar, rabbits, birds)?

- It happens to every hunter and is not a major issue 1
- This is a serious problem and must be solved by increasing the penalty 2
- I do not have an opinion 3
- Other/what/ 4



15. What is your opinion about the resettlement of game (red deer and fallow deer) in the Eastern Rhodopes?

- A very good idea, I will be happy to see them in the surrounding forrests 1
- A very good idea, I am a hunter and hope to be able to hunt in the future 2
- Pointless spending of money 3
- Other/what/ 4

16. What do you think are the main threats to biodiversity in the Eastern Rhodopes' region?

/You may indicate up to 3 answers/

- Intensive development of agricultural activities 1
- Industrial enterprises 2
- Tourism and tourist services 3
- Poaching 4
- Poisoning 5
- Deforestation 6
- Intensive agriculture 7
- The lack of information 8
- Other/what..... 9

17. In your opinion, do the local authorities support the ongoing initiatives for the protection of vultures?

- Yes, they always cooperate..... 1
- They partner with the NGOs..... 2
- They avoid getting involved 3
- They do not know the specifics of such activities 4
- They cooperate when they are obliged 5
- They cooperate unofficially 6
- I am not acquainted 7
- Other..... 8

18. What do you think the sometimes negative attitude towards biodiversity conservation is due to?

/ You may indicate up to 3 answers /

- It is due to lack of awareness 1
- It is due to personal injury 2
- It is due to aggression 3
- It is due to sports passion 4
- For entertainment 5
- For the passion of collecting 6
- It is due to irresponsibility 7



Other/what..... 8

19. Do you know the work of environmental organizations in the Eastern Rhodopes' region?

(Please, indicate the specific names of the organizations, you are aware of)

- I've heard there are, but I don't remember their names 1
- I am not aware of such organizations 2
- I am aware 3
- I am working/I have worked with 4

20. What measures have you heard being taken by conservation organizations?

.....
.....

- I am not acquainted 2

21. Which results do you think are most useful for conserving biodiversity in the Eastern Rhodopes so far?

.....
.....

- I am not acquainted 2

22. Which species, according to you, are the most cared for?

- For griffon vultures 1
- For black storks..... 2
- For birds in general 3
- For deer 4
- For turtles 5
- For plants 6
- Special care is not provided 7

23. How important it is for you to protect vultures?

(Please, indicate every correct answer)

- Protecting vultures is important to our community 1
- The protection of vultures provides an opportunity for the development of the region and job creation in some sectors 2
- Protection of vultures does not relate to business and the development of the region 3
- Protection of vultures harms the development of the region 4
- Protection of vultures doesn't matter to the lives of the locals 5
- Other /what/ 6



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24. What do you think is the preparation of students with regards to biodiversity in the area?

- They receive good training via the curriculum 1
- They get good preparation via extracurricular activities 2
- They get good preparation through training by NGOs 3
- They do not have the necessary preparation 4
- I am not aware

5

25. Would you support activities to restore the black vulture in the Bulgarian part of the Eastern Rhodopes?

- Yes, by all means 1
- I hesitate, I do not understand what the benefit is 2
- I do not think it is necessary 3
- I cannot judge 4

26. How do you think citizens perceive biodiversity conservation initiatives?

(You may indicate up to 3 answers)

- Such initiatives are widely supported.... 1
- Some people accept those, but there are large groups of people that reject the initiatives..... 2
- Hunters are a threat to biodiversity conservation 3
- Stock-breeders are a threat to biodiversity conservation 4
- Poachers are a threat 5
- Tourists are a threat 6
- Industrial pollutants are a threat 7
- Quarries/mines are a threat 8
- Other group, which one 9
- No one threatens biodiversity conservation 10

27. Do you want to get involved in the implementation of various environmental activities?

- Yes 1
- No 2
- I am not sure 3

28. If “Yes”, in what activities exactly?

.....
.....

29. What is the field in which you work?

(Please indicate only your main occupation)

- Stock breeding 1



- Agriculture 2
- Tourism 3
- Local and state administration 4
- Entrepreneurship 5
- A worker/an employee in a private company 6
- Jobless 7
- Other/what/ 8

30. Are you a hunter?

- Yes, I am at the moment..... 1
- Yes, I was but I'm not at the moment . 2
- I'm not, but I would like to 3
- I am not..... 4

31. You are:

- male 1
- female 2

32. What is your religion:

- Christian 1
- Muslim..... 2
- Other 3

33. What education do you have?

- Secondary and lower 1
- High School 2
- Higher education 3

34. Which municipality do you live in?

- In Kardzhali 1
- In Ivaylovgrad 2
- In Krumovgrad 3
- In Momchilgrad 4
- In Madjarovo 5

THANK YOU FOR YOUR PARTICIPATION!

