THE INFLUENCE OF SOCIO-DEMOGRAPHIC VARIABLES ON THE STATE OF ENVIRONMENTAL AWARENESS OF THE RURAL AREAS POPULATION - EXAMPLE OF SERBIA

Jelena Premović[1], Marko Pavlović[2], Marija Perić[3]

**Corresponding author E-mail: jelena.premovic@gmail.com*

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ABSTRACT

The purpose of this research was to determine the influence of certain socio-demographic variables on the state of environmental awareness of local population of the five areas in Serbia. For that purpose, an original empirical research was conducted. Age, gender, education and place of residence of the respondents were used as independent variables. The analysis was done using SPSS version 26.0 software in October 2024. The main intend of authors ware to define the level of environmental activity of the respondents, their assessment of the current ecological situation in their local environment, as well as their assessment of concern for environmental problems. Based on the analysis of the obtained results, it can be concluded that the respondents have an above-average expression when it comes to the environmental activities they carry out. Applying the comparative scientific method, it was concluded that statistically significant differences exist only in relation to the age of the respondents.

Introduction

The protection and improvement of human environment is an important issue mankind faces up to early 21st century until today, due to which the development of a new attitude towards nature and human environment is turning into one of imperatives of the modern society. Spending lifestyles and environmentally destructive technologies have led to

1 Jelena Premović,Ph.D., Full Profesor, Faculty of Economics and Engineering Management, University Business Academy, Cvećarska 2, 21000 Novi Sad, Republic of Serbia, Phone: +38164 144 17 98, E-mail: jelena.premovic@gmail.com, ORCID ID (https://orcid.org/0009-0001-8052-4802)

2 Marko Pavlović, lecturer, Academy of Vocational Studies Polytechnic, Belgrade, Katarine Ambrozić n. 3, 11120 Belgrade, Serbia, Phone: +381 64 219 48 81, E-mail: markopavlovic25101982@gmail.com, ORCID ID (https://orcid.org/0000-0003-1817-9734)

3 Marija Perić, lecturer, Academy of Vocational Studies Polytechnic, Belgrade, Katarine Ambrozić n. 3, 11120 Belgrade, Serbia, Phone: +381 64 338 96 65, E-mail: maki.peric84@gmail.com, ORCID ID (https://orcid.org/0009-0002-4673-2568)

the intensification of the already existing environmental problems (Premović, Boljević, 2016). Therefore, acceptance of ecological-ethical principles, greening of general social awareness, turning from industrial to ecological culture become imperative and a condition for further survival and development (Miltojevic et al., 2011). Socially responsible behavior implies the integration into business activities of the concept of concern for social issues, environmental protection, concern for all stakeholders and all issues that affect the quality of life in the long term (Stojić et al., 2024). Increasing physical volume caused the disruption of the natural environment, but on the other hand, increases the environmental awareness of the whole world society about the necessity of the sustainable development and environmental protection.

Sustainable development, which today faces major challenges, is a prerequisite for the development of rural areas. It is based on economic, ecological and socio-cultural principles that together lead to development (Ignjatović et al., 2024; Jović et al., 2024). It is "a tendency to make the world a better place, balancing social, economic and environmental factors is a harmonious relationship between ecology and economy, which aims to preserve the world`s natural resources for future generations" (Marjanović et al., 2019). At its core, sustainability aims to conserve resources (natural, human and created) while promoting efficiency and fairness (Jež Rogelj et al., 2024). As authors (Paparić et al., 2024) indicate "there is a continuous emergence of new ideas that enable improvements in sustainable development research respecting economic models (circular economy - CE, green economy - ZE and bio economy - BE) and sustainability models (development, maintaining the existing state and slowing down development)".

Developing environmental awareness and responsible behavior is crucial for achieving sustainable development. According to Fayyaz et al. (2023) "it is widely recognized that establishing effective, sustainable development policies can be complicated without proper awareness and understanding of the elements that encourage people to recycle". The term environmental awareness can be defined in many different ways. One of the first definitions dates back to 1978 in a report by the German Advisory Council on the Environment which defined environmental awareness as "understanding of the threat to man's natural environment by man himself, combined with the willingness to remedy this danger" (https://www.umweltbundesamt.de/en/publikationen/environmental-awareness-in-germany-2018). Environmental awareness can be defined as a conscious behavior towards the environment like the pro-environmental behavior (Handayani et al. 2021). It is "an art of imparting knowledge in people so that they develop new environmental perception. In as far as environmental awareness is concerned, three major steps have to be taken according to; knowledge of the present environmental status, what should be done and how to nurture environmental knowledge" (Milimo Dauti, M., 2014). According to the Enger and Smith (2013) environmental awareness is the ability to understand environmental issues and respective actions one needs to take to reach the good practice for realizing a sustainable environment (Handayani et al., 2021; Luković et al., 2024). In opinion of Hanisch et al., (2014) environmental

awareness is to attend to an environmental issue and its respective action leading to realizing a good practice to achieve a sustainable environment. It is "the level to which people worry about the impacts that their actions cause on the environment, other people, and the biosphere" (Hidalgo-Crespo et al., 2022). Agarwal (2018) states that environmental sustainability may be achieved when environmental awareness is performed in an integrated manner by all elements of the people, such as the scientists, engineers, and other communities. Lizuka (2000) point out that until recently, people's awareness was never considered as a possible tool to promote environmental policy. However, this tool is actually important and has potential to be a powerful tool in environmental sphere, concludes author. Walters et al., (2022) discovered strong proof that environmental awareness encourages initiatives that can lead to beneficial behavior. This study supports that ecological awareness is essential for developing greener behavior and attitude (Handayani et al., 2021). Environmental awareness constitutes an ultimate drive to green behavior as a pro-environmental behavior.

Materials and methods

Applying the historical and comparative method in researching the origin and development of ecological awareness, the conclusion was reached that environmental awareness can be surveyed in different ways. For instance, respondents can be asked about their attitudes, opinions and behavior in order to find out how environmentally conscious and educated they are. There is relatively limited number of study on environmental awareness in developing countries so it is quite urgent, as author underline that empirical study on environmental awareness to be carried out in developing countries (Lizuka, 2000).

Respecting the previous knowledge and based on the fact that "largest part of the territory of Serbia as much as 85%, according to OECD criteria, belongs to the so-called rural areas where live 55% of the total population in Serbia and where are most natural resources with rich ecosystems and biodiversity" (Premović, 2016) an original empirical research was conducted in order to investigate the level of environment awareness of the rural population of the Serbian territory. Although the Serbian rural areas characterized "by a high degree of differentiation in terms of size and morphology of the village, natural conditions and infrastructure facilities" as well as „in the field of social development, demographic trends, economic development, quality of life, environmental and other characteristics" (Premović, 2016) in research participated local rural population which for the purposes of this paper is divided into five areas: from Belgrade Region, Region of Vojvodina, region of Šumadija and Western Serbia, Southern and Eastern Serbia region and from Kosovo and Methohija. The total research sample consists of 200 respondents. The research period is December 2023 to April 2024. The purpose of this study was to determine the influence of certain socio-demographic variables on the state of environmental awareness of the rural areas population in Serbia. As independent variables in the research, the following were used: age, gender, education and place of residence of the respondents. The main goal of the research was

to define the level of environmental activity of the respondents, their assessment of the current ecological situation in their local environment, as well as their assessment of concern for environmental problems. Also, in the examination, were included questions related to the degree of pollution and ways to protect the environment.

When it comes to the gender of the respondents (Table 1), the majority of the sample consists of respondents of the female gender (61.0%) and a smaller part of the respondents of the male gender (39.0%). The sample is not uniform according to the gender of the respondents.

Table 1. Structure of the sample in relation to age, level of professional education, place of residence and social status of the respondents

AGE	**F**	**%**	**PLACE OF RESIDENCE**	**F**	**%**
to 25 years	31	15,5	Belgrade Region	63	31,5
25-35 years	59	29,5	Region of Vojvodina	54	27,0
35-45years	50	25,0	Šumadija and Western Serbia	56	28,0
45-55 godina	26	13,0	Southern and Eastern Serbia	10	5,0
over 55 years	34	17,0	Kosovo and Methohija	17	8,5
∑	**200**	**100,0**	∑	**200**	**100,0**
PROFESSIONAL EDUCATION				**F**	**%**
secondary vocational education				10	5,0
high school				26	13,0
faculty (MSc, PhD)				164	82,0
∑				**200**	**100,0**

Source: Authors

In relation to the age of the respondents (Table 1), the majority of respondents from the research are between 25 and 35 years old (29.5%). Respondents aged 35 to 45, who make up a quarter of the entire sample (25.0%), are in second place in terms of number. After that, there are respondents who are over 55 years old (17.0%), then respondents who are less than 25 years old (15.5%), and in the research, respondents who are between 45 and 55 years old (13.0%) are the least represented. The sample is not uniform according to the age of the respondents, but each age category has minimum frequencies that meet the needs of further analysis. In relation to the level of professional education, most respondents included in the research have completed a university degree and/or a master's degree/doctorate (82.0%). Respondents with completed college or university (13.0%) or completed secondary education (5.0%) are represented in a significantly smaller percentage. The sample is not uniform according to the level of professional education of the respondents. According to the respondent's place of residence, the majority of respondents have their place of residence in the Belgrade region (31.5%). This is followed by respondents residing in the region of Šumadija and Western Serbia (28.0%) and respondents residing in the region of Vojvodina (27.0%). A significantly smaller part of the sample of respondents consists of respondents who reside in the

region of Southern and Eastern Serbia (5.0%) and the region of Kosovo and Methohija, which make up 8.5% of the entire sample of respondents.

Results

In order to conduct research and collect data on the topic of environment protection, ecology and environment awareness, a questionnaire consisting of five parts was created. The first four units consist of closed-type, Likert-type questions with respondents' responses scaled from 1 to 5. The following four units consist of questions that are grouped as: Activities of the respondents related to ecology (Ecological activities) - EA (questions 1 to 5), Evaluation of the ecological state - EES (questions 6 to 14), Assessment of concern for environmental problems - ACEP (questions 15 to 20), Assessment of the degree of pollution - ADP (questions 21 to 25). In addition, the questionnaire included several closed-type questions with the possibility of multiple choices related to the examination of environmental protection, identification of the largest polluters, responsibility for the implementation of environmental activities and the respondents' willingness to engage in these activities.

Environmental activities of respondents (EA)

The environmental activity scale consists of five questions with answers from 1- Never to 5- Very often, all questions have a direct direction and a higher score on the scale indicates more frequent application of certain activities. The goal of the question is to examine which activities related to ecology and being in nature are implemented by the respondents. The obtained reliability of the scale (measured by Cronbach's alpha coefficient) is α=0.770.

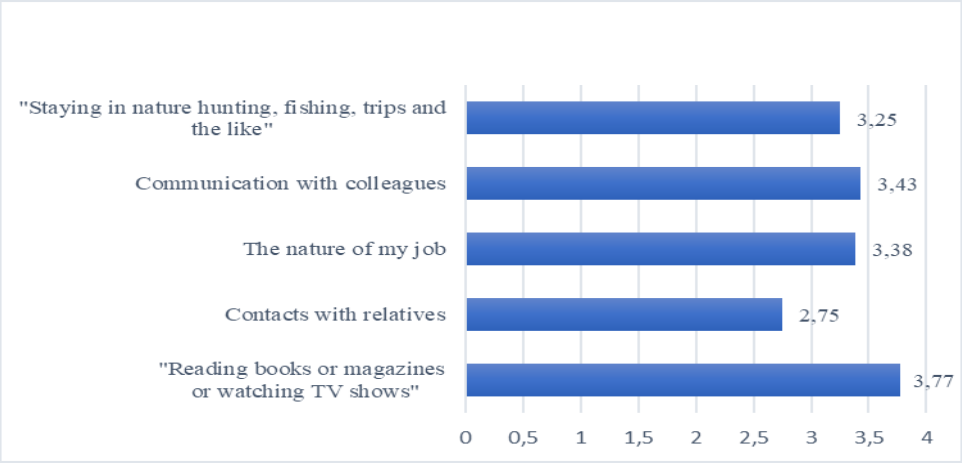
Table 2. Expression of EA in the entire sample of respondents

Skala	MIN	MAX	AS	SD
EA	1	5	3,31	0,820

Source: Authors

The obtained findings show (Table 2) that expression on the EA scale is above average (AS=3.31, SD=0.820). The empirical minimum is 1 and the maximum is 5. When it comes to expression on certain questions from the EA framework, the highest expression was obtained for questions 5. Reading books (magazines) or watching television shows that deal with environmental topics (AS=3.77, SD=0.986) and 2. Communication with colleagues encourages me to take care of the state of the environment (AS=3.43, SD=1.077) and the lowest expression was obtained for question 4. My contacts with relatives encourage me to take care of environmental condition (AS=2.75, SD=1.338) (Chart 1).

Figure 1. Expressiveness of EA scale statements



Source: Authors

Evaluation of the ecological condition (EEC)

The EEC scale consists of 9 Likert-type questions with a response range from 1- Much worse to 5- Much better. A higher score on the scale indicates that the situation in certain aspects of environmental assessment is better now than it was in the past. All questions have a direct direction and Cronbach's alpha coefficient for the scale is α=0.861.

Table 3. Expression of EEC in the entire sample of respondents

Scale	MIN	MAX	AS	SD
EEC	1	5	2,45	0,667

Source: Authors

The obtained findings show that at the level of the entire sample of respondents (Table 3), the average grade AS=2.45, SD=0.667, i.e. slightly below the theoretical average. The empirical minimum is 1 and the maximum is 5. At the level of individual questions from this scale, the highest score was obtained for question 14. Quality of water supply (AS=3.01, SD=0.743) and 6. Treatment of waste water in the environment where you live and work (AS=2.80, SD=1.050) and these are also the only questions on which expression above the theoretical average was obtained. The lowest expression was obtained when it comes to statement 9. Rational use of energy in traffic (AS=2.04, SD=0.896) (Graph 2).

Assessment of concern for environmental problems (ACEP)

The ACEP scale consists of 6 Likert-type questions, with a response range from 1 - I don't think about it to 5 - I am very worried. A higher score on this scale indicates greater concern of respondents for environmental problems in our country. The reliability of the scale is α=0.834 and all questions have a direct direction.

Table 4. Expression of ACEP in the entire sample of respondents

Scale	MIN	MAX	AS	SD
ACEP	1	5	3,84	0,676

Source: Authors

The results obtained from the research showed that (Table 4) the respondents are above average concerned about the environmental problems of the Republic of Serbia. The average on the level of the entire scale is AS=3.84, SD=0.676, the empirical minimum is 1 and the maximum is 5. Respondents showed the greatest concern in relation to 20. Air pollution due to traffic (AS=4.23, SD=0.897) and 16. Quality of basic foodstuffs (AS=4.13, SD=8.93) and the lowest expression was obtained in relation to concern for 15. Energy provision for different users (AS=3.33, SD=0.918). It is important to note that for all statements from this scale, an above-average expression was obtained, which is an indicator that the respondents are really very concerned about environmental problems.

Assessment of the degree of pollution (ADP)

When it comes to the ADP scale, this scale consists of 5 Likert-type questions. The range of respondents' answers ranges from 1- Not polluted to 5- Very polluted, and a higher score on the scale indicates a higher degree of pollution. All questions have a direct direction and the reliability of the scale measured by Cronbach's alpha coefficient is α=0.877.

Table 5. Expression of ADP in the entire sample of respondents

Scale	MIN	MAX	AS	SD
ADP	2	5	3,49	0,673

Source: Authors

The obtained findings show that the assessment of the degree of pollution is above average (AS=3.49, SD=0.673). The empirical minimum is 2 and the maximum is 5. According to the respondents, the biggest problem exists in relation to 22. Rate the level of air pollution in your area (AS=3.62, SD=0.849) and 24. Rate the local pollution problem (AS=3, 55, SD=0.857) and respondents are the least concerned about 21. Rate the level of water pollution in your area (AS=3.32, SD=0.768). It is important to note that a high above-average expression was obtained for all the statements of this questionnaire and that the level of pollution is very high according to the opinion of the respondents.

Table 6. *What does environmental protection mean to you?*

Assertion	**f**	**%**
1. Condition of standard of living and preservation of quality of life	144	72,0
2. Responsibility towards new generations	138	69,0
3. Sustainable development	78	39,0
4. Waste management	53	26,5
5. Need to satisfy needs	17	8,5
6. The condition to preserve natural resources	91	45,5

Source: Authors

Environmental protection EP

The fifth section of the questionnaire, as already mentioned, is an examination of methods of environmental protection, identification of the biggest polluters and activities that are carried out in order to improve the general ecological condition in our country. For the majority of respondents (Table 6), environmental protection represents 1. A condition for living standards and preserving the quality of life (72.0%) and 2. Responsibility towards new generations (69.0%). In addition, slightly less than half of the respondents agree that environmental protection is the 6th condition to preserve natural resources (45.5%) and more than a third of the respondents believe that environmental protection is the 3rd condition for sustainable development (39.0%). Also, a quarter of respondents believe that it is 4. Waste management (26.5%).

Table 7. *Who should solve environmental problems*

Assertion	f	%
1. Non-governmental organizations	12	6,0
2. International organization	22	11,0
3. Local self-government	73	36,5
4. The one who polluted	50	25,0
5. Country	71	35,5
6. Citizen	47	23,5
7. All together	133	66,5

Source: Authors

Table 8. *Who should finance environmental protection*

1. State from the budget	182	91,0
2. Someone from abroad	10	5,0
3. Local self-government funds	107	53,5
4. Bank loans	1	0,5
5. Environmental Protection Fund	83	41,5
6. I don't have an answer	2	1,0

Source: Authors

When it comes to solving pollution problems (Table 7), the majority of respondents, slightly less than two-thirds of the entire sample, believe that we should all solve environmental problems together (66.5%). In addition, 36.5% of respondents believe that it is a problem of local self-government and 35.5% that it is a problem of the state. Also, 25.5% of the respondents believe that environmental problems should be solved by the one who polluted, and 23.5% believe that the solution to that problem lies with the citizens.

In relation to who should finance environmental protection (Table 8), most respondents believe that it is the responsibility of the state (91.0%). In addition, more than half of the respondents believe that the local self-government should also provide financing for environmental protection (53.5%), and 41.5% cite the fund for environmental protection as a means of financing.

Table 9. *The most important factor of environmental protection*

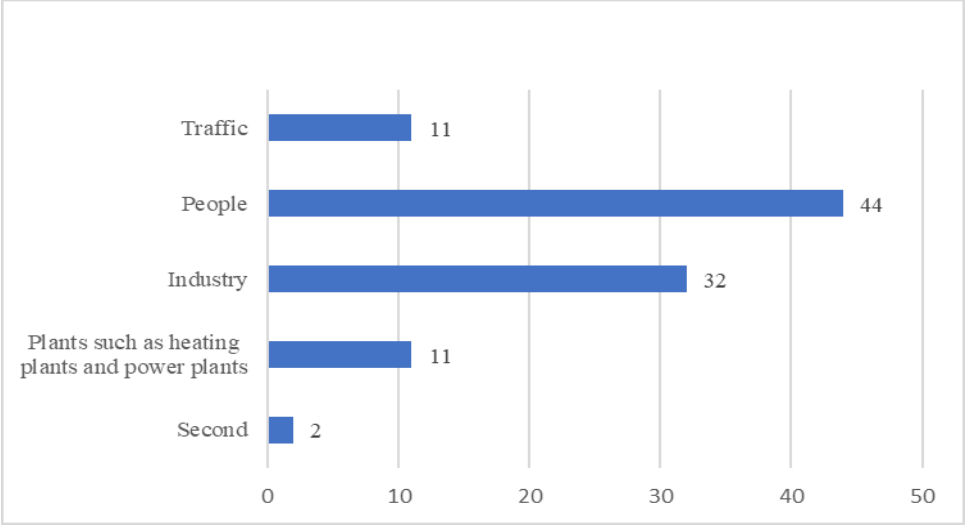
Assertion	f	%
1. Reduction of the number of pollutants	80	40,0
2. Construction of ecological infrastructure	86	43,0
3. Efficient and numerous inspection	74	37,0
4. Greater number of pollution preventions through a series of measures and activities of key factors responsible for the state of the environment	91	45,5
5. Better standard of living	30	15,0
6. Active implementation of "green" legislation and implementation of the European Union Law	67	33,5

Source: Authors

In relation to the most important factors of environmental protection (Table 9), to the greatest extent the respondents opted for Greater number of pollution prevention through a series of measures and activities of key factors responsible for the state of the environment (45.5%) and Construction of ecological infrastructure (43, 0%).

In addition, respondents often chose Reducing the number of pollutants (40.0%), as well as Efficient and numerous inspection (37.0%) as effective environmental protection factors.

Figure 1. The biggest polluters



Source: Authors

According to the respondents (Figure 1.), the biggest polluters of the environment are people (44.0%) and industry (32.0%). A significantly smaller percentage of respondents chose answers such as heating and power plants (11.0%) or traffic (11.0%).

When it comes to EU membership and the impact on environmental protection, more than half of respondents (53.0%) believe that EU membership would contribute to

environmental protection, and 41.5% are not sure. In addition, 5.5% of respondents believe that joining the European Union would not lead to an improvement in the environmental situation in Serbia.

Comparative analysis

In addition to the examination of the respondents' Activities related to ecology (Ecological activities) - EA, Environmental condition scale Assessments of the ecological state - EEC, Assessments of concern for environmental problems - ACEP and Assessments of the degree of pollution - ADP, the research also foresees the examination of these aspects of environmental awareness in relation to the sociodemographic characteristics of the respondents: gender, age, level of professional education, place of residence, social status and amount of monthly income.

Gender of the respondent

When it comes to the gender of the respondents (Table 10), the comparative analysis showed that there are no statistically significant differences for any of the four scales used. In general, on all scales, the expression obtained in female respondents is higher than in male respondents. The exception is the EEC environmental condition scale, where a higher score was obtained for male respondents (AS=2.50, SD=0.743) compared to female respondents (AS=2.41, SD=0.613). As mentioned, the obtained differences in expression did not show statistical significance.

Table 10. *Differences in EA, EEC, ACEP and ADP in relation to the gender of the respondents*

Scale	Gender	AS	SD	t	p
EA	*Male*	*3,28*	*0,784*	*-0,440*	*0,661*
	Female	*3,33*	*0,845*		
EEC	*Male*	*2,50*	*0,743*	*0,971*	*0,333*
	Female	*2,41*	*0,613*		
ACEP	*Male*	*3,73*	*0,750*	*-1,904*	*0,058*
	Female	*3,91*	*0,616*		
ADP	*Male*	*3,43*	*0,769*	*-1,058*	*0,291*
	Female	*3,53*	*0,604*		

df=200; *Source:* Authors

Age of the respondents

In relation to the age of the respondents (Table 11), statistically significant differences were confirmed for the EA (F=2.644, p=0.035) and ACEP (F=4.139, p=0.003) scales. The first obtained difference is significant at the $p<0.05$ level and the second is significant at the $p<0.01$ significance level. Subsequent analysis showed that on the Environmental Activities scale, respondents aged 25 to 35 years (AS=3.10, SD=0.896) have significantly lower scores compared to respondents under 25 years of age (AS=3.52, SD=0.811) , respondents aged 45 to 55 years (AS=3.51, SD=0.607) and respondents older than 55 years (AS=3.51, SD=0.799).

Table 11. *Differences in EA, EEC, ACEP and ADP in relation to the age of the respondents*

Scale	age	AS	SD	F	p
EA	*to 25 years*	*3,52*	*0,811*	***2,644***	***0,035****
	25-35 years	*3,10*	*0,896*		
	35-45 years	*3,21*	*0,787*		
	45-55 years	*3,51*	*0,607*		
	>55 years	*3,51*	*0,799*		
EEC	*to 25 years*	*2,62*	*0,764*	*0,955*	*0,433*
	25-35 years	*2,41*	*0,629*		
	35-45 years	*2,37*	*0,634*		
	45-55 years	*2,55*	*0,753*		
	>55 years	*2,38*	*0,616*		
ACEP	*to 25 years*	*3,88*	*0,605*	***4,139***	***0,003****
	25-35 years	*3,59*	*0,794*		
	35-45 years	*4,08*	*0,525*		
	45-55 years	*3,76*	*0,669*		
	>55 years	*3,96*	*0,590*		
ADP	*to 25 years*	*3,34*	*0,729*	*1,481*	*0,209*
	25-35 years	*3,41*	*0,620*		
	35-45 years	*3,58*	*0,698*		
	45-55 years	*3,70*	*0,580*		
	>55 years	*3,49*	*0,714*		

df=200; *Source:* Authors

On the ACEP scale, follow-up analysis (LSD) showed that respondents aged 25 to 35 years (AS=3.59, SD=0.794) had significantly lower scores compared to respondents aged 35 to 45 years (AS=4.08, SD=0.525) and respondents aged over 55 (AS=3.96, SD=0.590). In addition, on the scale of concern for environmental problems, it was confirmed that respondents aged 35 to 45 have significantly higher scores compared to respondents aged 45 to 55 (AS=3.76, SD=0.669). On the other scales (EEC and ADP), no statistically significant differences in expression were confirmed in relation to the age of the respondents.

Vocational degree

When it comes to the professional education of the respondents (Table 12), no statistically significant differences in expression were confirmed for any of the four scales used. Relatively close to the statistical significance of $p<0.05$, but not significant, is the difference obtained for the EA scale ($F=2.568$, $p=0.079$). On this scale, the highest score was obtained by respondents with completed higher or higher education (AS=3.64, SD=0.936) and the lowest by respondents with completed university (master's/doctorate) - AS=3.26, SD=0.799. In addition, respondents with a higher/higher education and respondents with a university degree gave the highest ratings of the environmental condition, while respondents with a secondary education showed the greatest concern for environmental problems. On the degree of pollution rating scale, the respondents who graduated from the faculty gave the highest ratings.

Table 12. *Differences in EA, EEC, ACEP and ADP in relation to the level of education*

Scale	Professional education	AS	SD	F	p
EA	secondary vocational education (SVE)	3,42	0,702	2,568	0,079
	high school	3,64	0,936		
	faculty (MSc, PhD)	3,26	0,799		
EEC	secondary vocational education (SVE)	2,27	0,503	0,383	0,682
	high school	2,46	0,597		
	faculty (MSc, PhD)	2,46	0,688		
ACEP	secondary vocational education (SVE)	3,92	0,610	0,118	0,889
	high school	3,88	0,468		
	faculty (MSc, PhD)	3,83	0,709		
ADP	secondary vocational education (SVE)	3,30	0,738	1,052	0,351
	high school	3,36	0,519		
	faculty (MSc, PhD)	3,52	0,689		

df=2; *Source:* Authors

Place of residence

In relation to the respondent's place of residence (Table 13), no statistically significant differences in the expressiveness of the scores were confirmed for one of the scales used. The highest score on the Ecological Activity scale was obtained by respondents from the region of Southern and Eastern Serbia, and the lowest by respondents from the region of Belgrade.

Table 13. *Differences in EA, EEC, ACEP and ADP in relation to the place of residence*

Scale	Place of residence	AS	SD	F	p
EA	*Belgrade Region*	*3,22*	*0,915*	*0,831*	*0,507*
	Region of Vojvodina	*3,29*	*0,722*		
	Šumadija and Western Serbia	*3,39*	*0,783*		
	Southern and Eastern Serbia	*3,68*	*0,661*		
	Kosovo and Methohija	*3,31*	*0,946*		
EEC	*Belgrade Region*	*2,38*	*0,656*	*0,749*	*0,560*
	Region of Vojvodina	*2,44*	*0,675*		
	Šumadija and Western Serbia	*2,55*	*0,681*		
	Southern and Eastern Serbia	*2,58*	*0,518*		
	Kosovo and Methohija	*2,32*	*0,733*		
ACEP	*Belgrade Region*	*3,87*	*0,711*	*0,098*	*0,983*
	Region of Vojvodina	*3,85*	*0,665*		
	Šumadija and Western Serbia	*3,81*	*0,677*		
	Southern and Eastern Serbia	*3,88*	*0,766*		
	Kosovo and Methohija	*3,79*	*0,585*		

Scale	Place of residence	AS	SD	F	p
ADP	*Belgrade Region*	*3,51*	*0,700*	*0,317*	*0,866*
	Region of Vojvodina	*3,51*	*0,609*		
	Šumadija and Western Serbia	*3,41*	*0,682*		
	Southern and Eastern Serbia	*3,54*	*0,674*		
	Kosovo and Methohija	*3,59*	*0,783*		

df=4; *Source:* Authors

On the EEC and ACEP scales, the highest scores were obtained by respondents from the regions of South and Eastern Serbia, and the lowest by respondents from the Kosovo region, while on the scale of the degree of pollution, the highest score was obtained by respondents from the Kosovo region, and the lowest score was given by respondents from the Šumadija region and Western Serbia.

Discussions

The obtained findings showed that the respondents have an above-average expression when it comes to the environmental activities they carry out. The highest expression on this scale was obtained for the statements Reading books (magazines) or watching television shows dealing with environmental topics and Communication with colleagues encourages me to take care of the state of the environment, and the lowest expression was obtained for the statement My contacts with relatives encourage me to take care of the state of the environment.

On the scale of the Environmental Status Assessment (EA), a grade slightly below the theoretical average was obtained, which could indicate that the situation is not hopeless, but that there is certainly room and need to improve. At the level of individual statements, the highest expression was obtained when it comes to Quality of water supply and Wastewater treatment in the environment where you live and work, and the lowest score was obtained for the statement Rational use of energy in traffic.

When it comes to the assessment of concern for environmental problems, it was confirmed that there is a high above-average concern for the state of the environment. The respondents showed the greatest concern in relation to air pollution due to traffic and the quality of basic foodstuffs, while the respondents were the least concerned about the provision of energy for different users.

A high, above-average score was also obtained on the Pollution Degree scale, which indicates that there is a high degree of pollution. The highest score, i.e. the highest degree of pollution, was obtained for the statements Assess the level of air pollution in your area and Assess the local pollution problem, and the lowest score was obtained for the statement Assess the level of water pollution in your area.

The fifth section of the questionnaire that was used in the research was related to environmental protection. When asked what environmental protection means to them, respondents most often chose the answers Condition of living standards and

preservation of quality of life and Responsibility towards new generations. In relation to solving the problem of pollution, according to the opinion of the respondents, we should solve these problems together, but a significant part of the respondents stated that it is the responsibility of the local self-government and the State, and only four of the respondents believe that solving this problem should also be the concern of the citizens. When it comes to the financing of environmental protection, according to the findings, that is, the respondents' opinion, finances should be allocated first of all by the State, and then by the Local Self-Government and the Environmental Protection Fund. As the most important environmental factors, the interviewees singled out first of all the greater number of pollution prevention measures and activities of the key factors responsible for the state of the environment and the construction of ecological infrastructure. In addition, respondents often chose Reducing the number of pollutants, as well as Efficient and numerous inspection.

The obtained findings also showed that, according to the opinion of the respondents, the biggest polluters of the environment are primarily People and Industry. A significantly smaller percentage of respondents chose answers such as Heating and power plants or Traffic. In addition, more than half of respondents believe that EU membership would contribute to environmental protection.

In addition to the examination of environmental problems and the respondents' awareness of environmental protection through these five sections, the research also dealt with a comparative analysis of the differences in the expressiveness of the scores in relation to the socio-demographic characteristics of the respondents: gender, age, level of professional education and place of residence. The obtained findings confirmed that statistically significant differences exist only in relation to the age of the respondents. Namely, significant differences were obtained for the EA and ACEP scales, and subsequent analysis showed that on the Environmental Activities scale, respondents aged 25 to 35 years had significantly lower scores compared to respondents aged up to 25 years, respondents aged 45 to 55 years and respondents older than 55 years. On the ACEP scale, it was confirmed that respondents aged 25 to 35 years old have significantly lower scores compared to respondents aged 35 to 45 years and respondents aged over 55 years. Also, on the scale of concern for environmental problems, it was confirmed that respondents aged 35 to 45 have significantly higher scores compared to respondents aged 45 to 55.

On the other scales, no statistically significant differences in the expressiveness of the scores in relation to the age of the respondents were confirmed. Significant differences were not confirmed either in relation to gender, level of professional education and place of residence of the respondents.

Conclusions

The aim of this research was to examine environmental problems and the level of awareness of respondents about environmental protection. In order to conduct the

research, a questionnaire consisting of five parts was created. The first four sections of the questionnaire refer to the examination of Environmental Activities, Assessment of the Environmental Condition, Assessment of Concern for Environmental Problems and Assessment of the State of Pollution. It is also important to note that all four scales showed good reliability above an arbitrary limit. The fifth section of the questionnaire refers to environmental protection, examining who is the biggest polluter and whose responsibility it is to implement and finance activities aimed at environmental protection. The obtained findings showed that the respondents have an above-average expression when it comes to the environmental activities they carry out. On the scale of the Environmental Status Assessment (EA), a grade slightly below the theoretical average was obtained, which could indicate that the situation is not hopeless, but that there is certainly room and need to improve. When it comes to the assessment of concern for environmental problems, it was confirmed that there is a high above-average concern for the state of the environment. A high, above-average score was also obtained on the Pollution Degree scale, which indicates that there is a high degree of pollution. In addition to the examination of environmental problems and the respondents' awareness of environmental protection through these five sections, the research also dealt with a comparative analysis of the differences in the expressiveness of the scores in relation to the socio-demographic characteristics of the respondents: gender, age, level of professional education and place of residence. Based on the analysis of the obtained results, it can be concluded that the respondents have an above-average expression when it comes to the environmental activities they carry out. The obtained findings confirmed that statistically significant differences exist only in relation to the age of the respondents. Such findings may also be a consequence of unevenness in the structure of the sample and it is very likely that they would be different if there was a better distribution in the categories of variables related to the socio-demographic characteristics of the respondents.

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Conflict of interests

The authors declare no conflict of interest.

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