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Challenges and Problems of Nature Conservation: A Case Study from Poland

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Abstract: The article aims to show the attitudes and views of Polish residents on the problem of preserving the natural environment from the perspective of their place of residence. The need for research in this area stems from the insufficient number of available studies on this very important issue given the global environmental challenges we are facing. The research gap noted relates particularly to the aspects of engagement in environmental measures, knowledge levels, and motivations for conservation efforts by local citizens. Environmentally and socially responsible behavior is part of the concept of sustainable development. Empirical research covered a sample of 500 adult residents of Poland using the CAWI technique. The results showed that the vast majority of respondents noticed numerous problems in preserving the natural environment in their place of residence. According to respondents, the way to reduce these problems is to increase care for green areas, promote renewable energy sources, and strive to reduce waste. Moreover, the research results show that respondents take initiatives to segregate waste, save energy, and apply the zero-waste concept. The main reason for taking action to solve environmental problems is to preserve the environment for our children and future generations. The results of these studies showed that for men, pro-environmental activities are more important than for women. These findings are valuable for policymakers, local authorities, and fellow citizens.

Keywords: environmental awareness; local actions; social involvement; environmental degradation; community activity; environmental protection costs

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1. Introduction

Today's environmental changes, especially climate impacts, combined with biodiversity loss, the shrinking of freshwater resources, and increased soil, water, and air pollution, have grown to become a global problem in the 21st century. The ample range of diverse physical, social, and economic consequences of it affect people all over the world [1]. Joint action taken to stop the degradation of the human living environment from progressing is reflected in the goals laid down in the UN Agenda 2030, i.e., the strategy for global development by 2030, which includes 17 Sustainable Development Goals, mostly focused on making efforts to save whatever has not yet been irreparably lost to deliver it to posterity [2]. In that context, particular importance is attached to small communities [3] that jointly form the global population and have the untapped potential to stop adverse changes [4]. In order to tap into that potential, people need to know the environment, its importance, and the way it changes; must rely on a duly organized, multi-level support network to underpin their environmentally oriented measures; and should be provided with adequate financial

resources. As practice shows, these factors do not always coexist. This is true for most countries around the globe, especially since even those considered wealthy tend to deprioritize environmental measures, pressured by ongoing social needs, such as healthcare, social insurance systems, etc.

Poland allocates slightly above 3% of its GDP per year to environmental protection [5]. Although that amount keeps growing, it still cannot be deemed sufficient. The burden of caring for the natural environment seems to have been largely transferred to households (which become increasingly aware of the problem). Therefore, in the complicated reality of the 2020s, it becomes important to explore the Polish population's attitudes towards and views of preserving the natural environment and to define the related problems, especially at the micro level, i.e., where people live and act on a daily basis (their local environment). The assumptions behind this research project were as follows:

- The natural environment is assessed in a subjective manner, i.e., is viewed through the prism of analyzing one's immediate surroundings, as a place where people live and operate;
- Although people can become involved in environmental protection through bottom-up initiatives taken by the residents, they require organizational (legal and administrative) support from authorities at different levels and identified financing streams;
- Individual activities require high levels of knowledge and environmental awareness, while also being correlated with gender;
- Individuals show little willingness to bear a part of the environmental protection costs (at a level comparable to them making voluntary tax donations to NGOs).

This paper includes a literature review section, which discusses key issues related to environmental protection, awareness, education, etc., followed by a methodological section (Section 3). The following sections focus on presenting and discussing the findings, along with a summary and an outline of the limitations of the study.

2. Literature Review

2.1. Protecting Nature

Today, people keep struggling with the consequences of what their predecessors did, including environmental degradation, global warming, and other problems largely related to making an unsustainable use of natural resources [6]. In this situation, environmental protection and sustainable development become a common area of interest to all countries around the world and a global goal. That problem is reflected in the UN Sustainable Development Goals defined in 2015 in the document referred to as the 2030 Agenda for Sustainable Development [2]. Over the last few decades, it has been at the core of many detailed scientific research projects and statistical analyses carried out at the global level. On the one hand, the results of the document emphasize the priority of dealing with environmental problems to ensure the continuity of human existence on the planet while also indicating the need to take urgent recovery and preventive actions. On the other hand, they elevate environmental awareness, not only in the scientific community but also among decision-makers and ordinary people who live in an increasingly degraded environment [7].

In a conceptual sense, environmental protection means a combination of ideas, means, and measures designed to maintain the environment in a state that ensures optimum living conditions and guarantees the continuity of key processes in the biosphere [8]. The European Union (EU) defines 'environmental protection' means any action designed to remedy or prevent damage to physical surroundings or natural resources by a beneficiary's own activities, to reduce the risk of such damage, or to lead to more efficient use of natural resources, including energy-saving measures and the use of renewable sources of energy [9].

In the legal sense in Poland, it was defined in Article 3, Item 13 of the Environmental Protection Act of 27 April 2001 (hereinafter referred to as EPA) as "... taking or discontinuing certain actions with a view to preserve or recover environmental balance. It is expressed, without limitation, in a rational development of the environment and in managing natu-

ral resources as per the principle of sustainable development, i.e., preventing pollution and restoring environmental components to a proper condition" [10]. When it comes to an actionable definition, protecting nature means a combination of means and measures taken to protect and preserve the natural environment, ecosystems, and biodiversity and to prevent pollution and other adverse activities that degrade the environment. Their purpose is to ensure the sustainable use of natural resources for both the current and future generations [11–13]. Environmental protection can also be defined as preventing undesired changes to ecosystems and their components. Viewed as such, ecosystem protection applies to existing and potential impacts of changes related to human activity and to preventing natural yet undesired changes [14]. Irrespective of how it is defined, environmental protection is a combination of activities taken by individuals, authorities, and governments with a view to assure favorable living conditions for the current and future generations and to let them exercise their right to use natural resources and preserve natural values (especially to preserve or restore natural balance) [15]. Seeing it from that angle makes people realize the need to engage in environmental measures taken at different (local, regional, and national) levels. On the other hand, it indicates the comprehensive nature of environmental protection, which must span over all environmental components: from the land surface (including soil, land relief, and deposits), inland waters, and the maritime environment and its resources, through to air, fauna and flora, landscape values, leisure opportunities, and urban and rural greenery resources [16]. Therefore, environmental protection measures can be taken with respect to such components as the following [17]:

1. Environmental air and climate.
2. Wastewater management.
3. Waste management.
4. Protection and remediation of soils, groundwater, and surface water.
5. Noise and vibration suppression.
6. Biodiversity and landscape protection.
7. Protection against radiation.
8. Research and development.
9. Other environmental protection activities.

The EU and its member states want to take action to restore biodiversity by 2030. The EU Biodiversity Strategy for 2030 is the cornerstone of nature protection in the EU and a key element of the European Green Deal. The Commission presented the strategy in May 2020. In particular, by 2030, it wants to achieve the following:

- Protect at least 30% of the EU's land and sea areas by expanding current Natura 2000 sites;
- Restore degraded ecosystems through concrete commitments and measures, including a 50% reduction in pesticide use and related risks and planting 3 billion trees across the EU;
- Make EUR 20 billion available each year to protect and promote biodiversity from EU, national, and private funds;
- Create an ambitious global biodiversity framework [18].

According to a report prepared by the Schuman Foundation and the Adenauer Foundation, the state of the environment in Poland is the worst in the entire European Union. According to this report, Malta is the leader of the ranking, thanks to the efforts of entrepreneurs and citizens to protect the environment. They demonstrate significantly greater activity than the state itself. On the other hand, Poland came out worst in the ranking of green countries of the European Union, and the state's efforts for climate are particularly bad [19].

Failing to take environmental protection action may result in the emergence of specific risks to human life and activity. The risks related to inappropriate environmental management are the consequence not only of the resources being scarce but also of environmental pollution. However, as these phenomena may be triggered either by natural or anthro-

pogenic factors, not all of them can be eliminated or interfered with [20]. This is especially true for natural threats under indirect and marginal human control. Hence, the purpose of human environmental measures is to eliminate the threats caused by humans themselves and minimize their impacts and in particular to minimize the related vulnerabilities. However, achieving that goal requires knowledge as well as healthy, robust communities and ecosystems [21]. Reducing environmental risks and continuing environmental protection efforts are two major parts of sustainable development. Rational measures taken in that area may contribute to addressing current social and environmental needs while also allowing the preservation of the environment for future generations with no further damage [22].

Industrialization, urbanization, some direct foreign investments, and economic growth are accountable for environmental degradation. Additionally, some researchers found individual human activities to also contribute to it [23].

Indisputably, human activity in most parts of the world changes—while also largely degrading—the global environment [24,25]. The numerous factors that contribute to global environmental impacts include changes in land use, desertification, deforestation, loss of biodiversity, atmospheric pollution, ozone depletion, and climate change [26]. In that context, the challenge faced by humanity is to shift from an individual, consumption-oriented lifestyle to a more environmentally friendly one. The transition should be intense enough to enable a transformation of the socio-technical system and social practices in key areas, i.e., mobility, housing, agri-food products, heating, and lighting, for everyone [27]. Communities around the world, whether at a local, regional, or global level, should be directly involved in environmental protection measures; it would be a key driver of a global transformation [28]. However, practice shows that the numerous attempts to make it happen have failed to deliver satisfying results. Examples include the 2018 Paris Agreement on mitigating climate change and counteracting global warming [29]. As proven many times, community involvement in environmental programs enables more efficient decision-making on how to protect the environment and its natural resources [30].

In view of the growing social atomism, it becomes increasingly important to focus on voluntary actions taken by individuals to protect the environment (soil, water, air, climate, etc.). Although barely noticeable, these measures combined together form an important dimension of environmental activity. However, they require knowledge, which raises awareness (with education playing an indisputable role); economic rationality (costs and benefits of environmental measures); and activity (proactive attitudes that address the emerging problems and expectations).

2.2. Sources of Environmental Knowledge and Awareness

Environmentally friendly behaviors mean informed action taken by individuals and communities that is beneficial to the environment, protects it, and reduces its degradation [31]. What matters in this process is to be aware of the problem at both the individual and community levels. Social awareness refers to a set of collective visions, which is more than just a simple combination of what each individual thinks and feels (although individual attitudes lay at its core) [32]. In a more complex sense, it means the whole set of contents and forms of spiritual life that are specific to the society concerned; it includes not only concepts but also institutions (law, science, religion, etc.). At that level, social awareness determines everyday life choices, affects the surroundings, and may either benefit or harm the planet (if environmentally detrimental attitudes are rooted deep in social awareness). Developing it the right way becomes a long-term challenge for the current and future generations. Environmental awareness is a special category of social awareness. It refers to ideas, values, and opinions related to the environment as a place where humans live and develop and to the perceptions of the role the environment plays in human life (including the level of knowledge of methods and tools for managing the use, protection, and development of the environment) that are shared within specific social groups in a given historical period [33]. There are as many as five types of social environmental awareness itself, determined by what the society cares about: climate awareness; awareness

of climate change topics; environmentally friendly behaviors; climate-friendly behaviors; and environmental quality [23].

Human environmental awareness is formed by widely adopted social norms, information delivered in mass media, and various forms of ecological education. It also depends on the conditions the individuals live in and on their personal experience. To a certain degree, the above is determined by factors such as the awareness levels of residents of areas at particular risk or protected areas (which is the consequence of how people function in such conditions) [34]. Usually, high levels of environmental awareness in a society contribute to reducing adverse environmental impacts, even if the underlying factors vary in function of the country and social group [35]. Environmentally friendly behaviors are believed to refer to activities that promote environmental protection, whether intentionally or not [36]. If people realize their behavior has an adverse environmental impact, most of them will change it and will demonstrate environmentally friendly attitudes more frequently [37].

The process of forming environmental awareness changes over time and is related to how individuals perceive the condition of their environment (see Figure 1 below). It starts by identifying the problem, i.e., by realizing the symptoms of environmental degradation in their immediate surroundings. The next stage involves communicating these findings at a local level (neighbors and local authorities) while also emphasizing the natural values that are not degraded and seeing the need for protecting them [38].

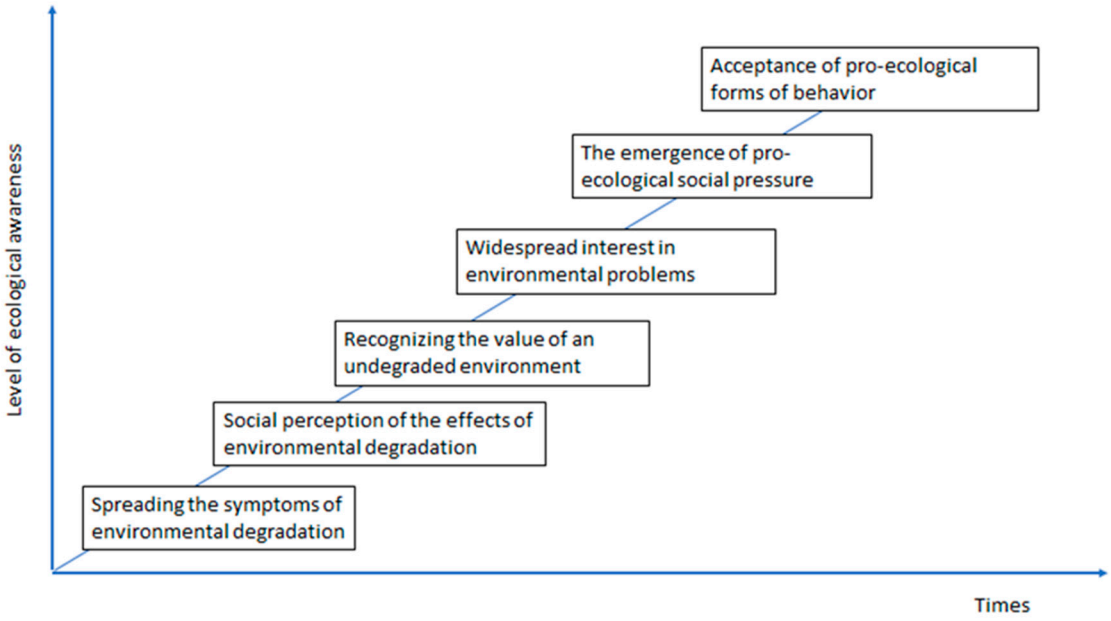


Figure 1. Process of forming environmental awareness. Own elaboration based on [38].

The European Union in its Eurobarometer survey series regularly asks its citizens about the most serious issues they think their countries will have to face in the near future. As the surveys have revealed, the climate and environment are among the main concerns of European citizens [39]. The survey in 2024 shows that a large majority of citizens in all EU countries say that protecting the environment is personally important to them or very important. The citizens of the EU report that environmental issues have a direct impact on their daily lives and health. The survey shows that the most effective way to tackle environmental problems is to change the way we consume, produce, and trade. The results also show that Europeans want to do more to protect the environment, with responsibility falling on big business, government, and the EU as well as on the citizens themselves [40].

The literature on the subject presents a variety of opinions on the levels of environmental awareness among the Polish population. Some authors claim that environmental awareness is on the rise (there is a declining number of followers of what is referred to as environmental neutrality, while the number of environmentally involved people grows).

Others believe the level of environmental awareness to be low; according to them, this is true not only for ordinary people or entrepreneurs but also—as an extremely important aspect—for decision-makers. This could be the reason behind the high energy intensity of the national economy, which is largely based on coal [41]. It follows from both sociological and economic studies that ecological problems are considered secondary, but the environment is recognized and valued by the Polish society [38]. At the same time, the attitudes of the Polish population shift from being emotional to having a rational—if not pragmatic—aspect. Ecological education offered at different levels certainly plays an important role in it. Already in the late 1990s, some raised the need for introducing ecological education as a must-have [42]. They pointed out the non-rational use of natural resources, which, sooner or later, would lead to dangerous environmental disasters and catastrophes. Also emphasized was the fact that raising environmental awareness and making people respect the environment are the only enablers of rational environmental management in the future. Another finding was that although every aspect of human life is intrinsically related to the environment, many people (e.g., housing estate dwellers, uptown residents, etc.) are nearly totally cut off from nature. At the same time, the development of knowledge of the human natural environment is split into a number of elements that are mutually inconsistent. The participants in the multi-level education process do not always relate these aspects with one another and even less frequently put them into practical use [38,43]. Education is a powerful agent of social and perceptual change. It can serve as a tool to raise awareness of the latest trends and changes and provide appropriate training for professionals. It can also support government efforts because it can familiarize the public with innovative technologies and build trust in new products [44].

The term "environmental education" was introduced at the 1977 International UNESCO Conference dedicated to that topic, held in Tbilisi. The participants agreed on a high-level definition that viewed environmental education as a process of human development [45]. They also emphasized that development is an informed process that involves both the environment and its related global issues. As part of it, it is particularly important to shape attitudes and develop knowledge, skills, and motivation but also to be committed to making individual and collective efforts with a view to solving the existing environmental problems and preventing new ones from occurring [46]. Today, environmental education is considered an important part of the sustainable development concept. In broad terms, it is intended to make people understand the foundations of the sustainable management of the natural environment, to enable the introduction of state-of-the-art technologies for environmental protection, to promote efficient use of natural resources, to shape cultural habits and moral attitudes, and to make people think holistically, i.e., understand the needs of humans and of nature [47].

3. Materials and Methods

This is a theoretical and empirical paper. The theoretical section is based on a review of the literature related to environmental protection, awareness, and education. The empirical part relies on factual materials collected through a CAWI-based online survey questionnaire. A consumer panel delivered by BioStat Sp. z o.o. (Rybnik, Poland) on the SurvGo platform was used for that purpose. The study was carried out with 500 Polish residents in September 2023 as a voluntary and anonymous survey. All participants were familiarized with the aim of the study and consciously agreed to take part in it. The study did not obtain any personal data or email addresses enabling the identification of respondents. The survey questionnaire was composed of two parts: the first was the description of the interviewees, whereas the second was directly related to exploring the attitudes towards and views of the problem of how to protect the natural environment in Poland. That part covered both personal opinions on the current condition of the local environment and on administrative, organizational, and financial support for environmental measures at different (local, regional, and national) levels. Also analyzed was the scope of measures taken and the related plans for the future. Additionally, the interviewees were asked about

the level of knowledge that enables taking environmental measures and their educational needs in that area. The factual material collected this way was analyzed with statistical tools, namely Excel (Microsoft 365) and STATISTICA 13.3. Non-parametric statistical procedures were used, including the Mann–Whitney U test, the Kruskal–Wallis test, and the Spearman rank correlation coefficient. The results were described and presented in a tabular and graphical form.

4. Results

In the sample, 52.0% were women and 48.0% were men. The respondents differed in age; young people aged between 31 and 40 held the largest share, whereas those aged 50+ formed the smallest group. Most participants (49.0%) had tertiary education. Generally, the interviewees were medium and big city dwellers; a fourth of them (24.0%) lived in rural areas or in small towns. The vast majority of the sample was found to be professionally active (working as blue- or white-collar workers). However, the sample also included unemployed people (9.6%) and old-age or other pensioners (10.6%). The large share of those in employment is consistent with the amount of net income per capita: more than half (55.6%) of the interviewees had an income of over PLN 2500. Note that 15.6% of the sample earned a smaller income (from PLN 2001 to PLN 2500), whereas 13.2% reported an extremely small amount between PLN 1501 and PLN 2000. The socio-demographic characteristics of the sample are presented in Table 1.

Table 1. Demographic characteristics of participants (n = 500).

Specification		Frequency	Percentage (%)
Gender	Female	260	52
	Male	240	48
Age	18–30	125	25
	31–40	173	34.6
	41–50	104	20.8
	>50	98	19.6
Education	Vocational or lower	43	8.6
	Secondary	212	42.4
	Tertiary	245	49
Place of residence	Rural areas or cities with a population of up to 20,000	120	24
	City with a population of 20,000 to 100,000	131	26.2
	City with a population of 100,000 to 200,000	99	19.8
	City with a population over 200,000	150	30
Net income per capita	Below PLN 1000	31	6.2
	PLN 1000 to PLN 1500	47	9.4
	PLN 1501 to PLN 2000	66	13.2
	PLN 2001 to PLN 2500	78	15.6
	>PLN 2500	278	55.6
Employment status	Blue collar	144	28.8
	White collar	197	39.4
	Entrepreneur	31	6.2
	Old-age/other pensioner	53	10.6
	Unemployed	48	9.6
	Unfit for work	2	0.4

Source: own study.

The respondents were asked their opinion about the current condition of the natural environment in their place of residence (Figure 2). It follows from that diagnosis that nearly half of the Polish population surveyed could identify numerous problems that need to be solved as soon as possible (41% of replies) while also believing that the environmental measures taken so far are inefficient and that their results are not quick enough, making

them insufficient (40% of replies). The interviewees also noted that the condition of the natural environment requires immediate action, especially including bottom-up initiatives, as well as measures integrated with steps taken by local, regional, or even central authorities (31.8%). At the same time, nearly 30% of the respondents either believed the condition of the natural environment in their place of residence to be good and not to require any intervention or showed no interest at all in that problem.

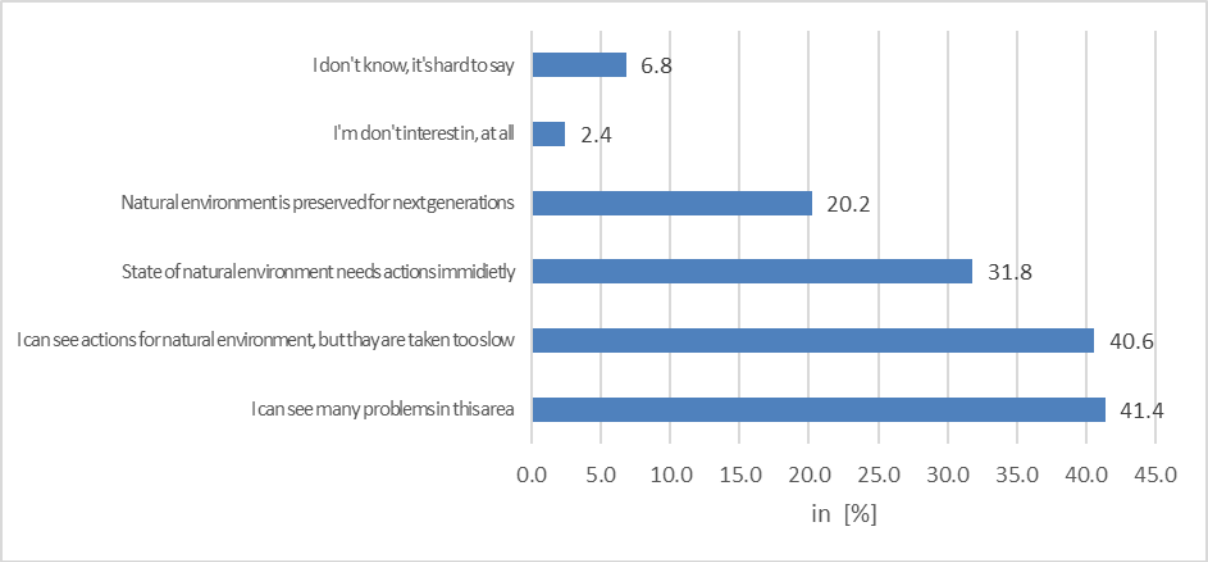


Figure 2. Views of the current condition of the local natural environment. Source: own study.

The study asked the respondents to assess the measures taken by administrative authorities at different levels (especially including central and local government and other residents) with a view to protecting the natural environment in their place of residence. As shown by the results (Figure 3), the highest grades were given to the impacts made by local authorities (4.2) and fellow citizens (4.1) (on a scale from 1 to 7). The impact of the central government on measures taken at the local level was ranked at the bottom (3.8).

As shown by the statistical tests, the level of education and the population of the town where the interviewees live had a statistically significant influence on how they viewed the impacts of the central government (p = 0.037 and 0.054, respectively). Interestingly, higher grades were given by respondents at lower education levels and those living in rural areas and small towns. Conversely, well-educated people and residents of big cities had a negative opinion of the actions of the central government. As regards the impact of fellow residents on environmental protection decisions, only the education level proved to be significant (p = 0.050).

Also analyzed was the respondents' reaction to illegal environmental degradation activities, such as illegal dumping of waste in forest and meadow areas, release of wastewater to groundwater outside the sewerage network and waste treatment plants, incineration of waste, and landfill of dangerous wastes (Figure 4). Despite certain environmental measures being taken, such as "clean up the world" or the obligation to separately collect waste, the above continues to pose a huge problem, especially at the local level [48].

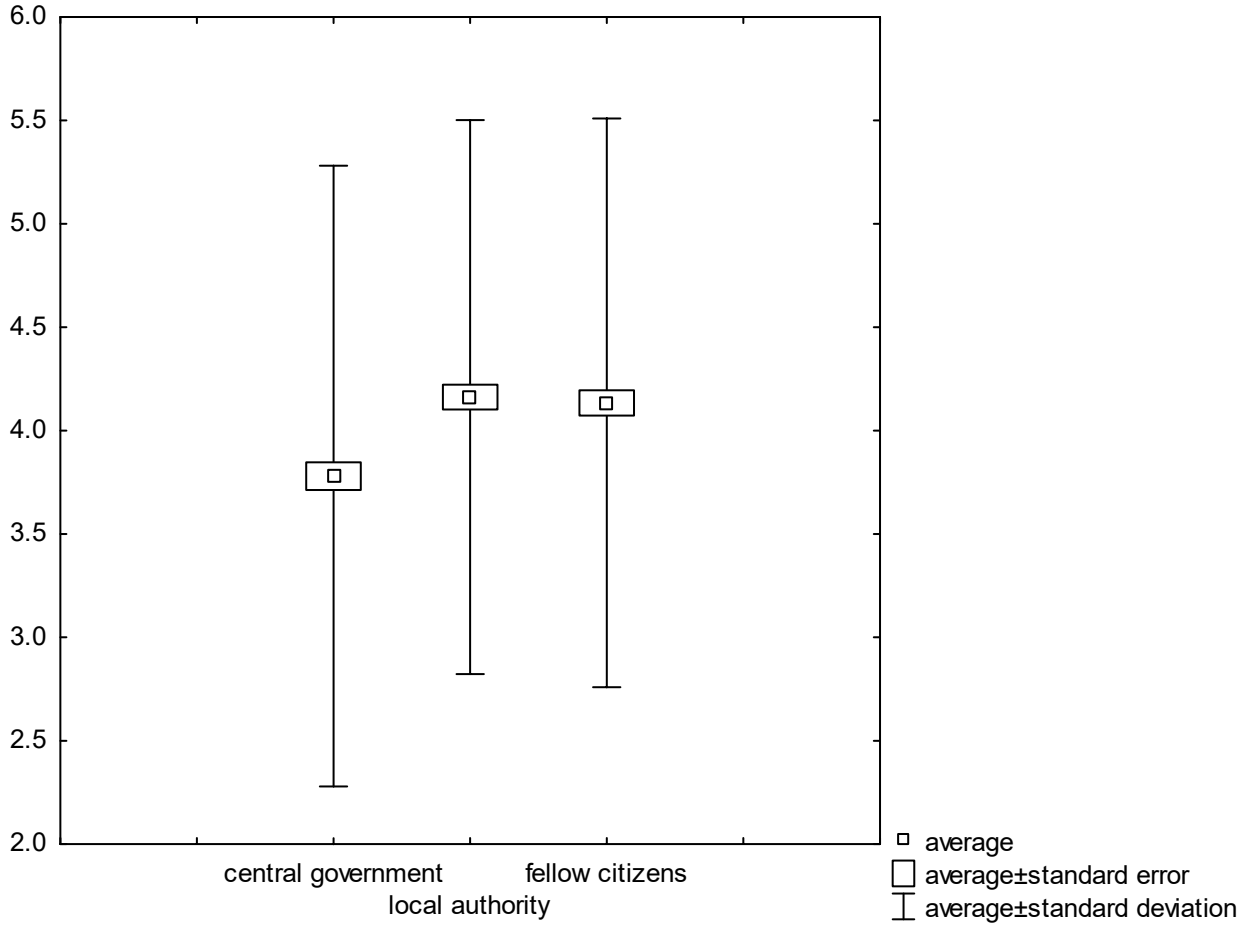


Figure 3. Assessing the measures taken by administrative authorities at different levels and other residents with a view to protecting the natural environment in the respondents' place of residence. Source: own study.

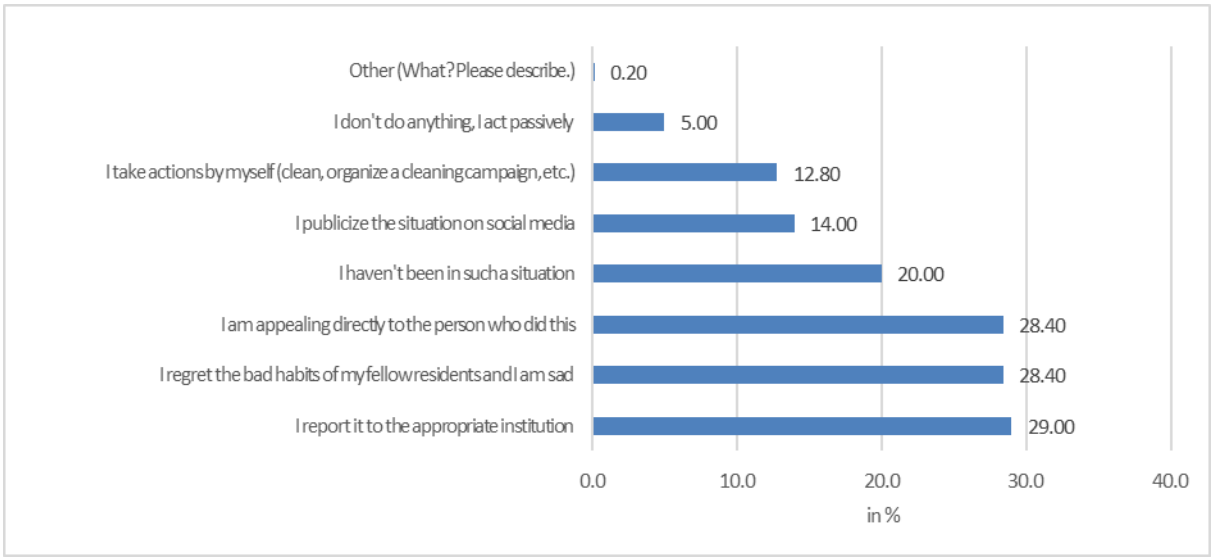


Figure 4. Response to illegal activities related to nature. Source: own study.

It turns out that in nearly 60% of situations, the respondents took steps to counteract the adverse activities they witnessed by reporting such events to appropriate authorities, namely commune officials, the police, municipal police, or the environmental protection

inspectorate (29% of replies), or by addressing themselves directly to the perpetrator (28.4% of replies). Nearly 30% of the interviewees believed such events to be frustrating (causing sadness and dissatisfaction) but could not clearly declare if they triggered any action. Moreover, 12.8% took active clean-up actions (either cleaning up themselves or initiating such activities). Additionally, 14% tried to report such events on social media (which can be viewed as a kind of passive behavior).

From the perspective of this study, it turned out to be very interesting to learn the respondents' opinion on who should manage the local resources and, thus, who should decide how to protect or exploit them (Figure 5).

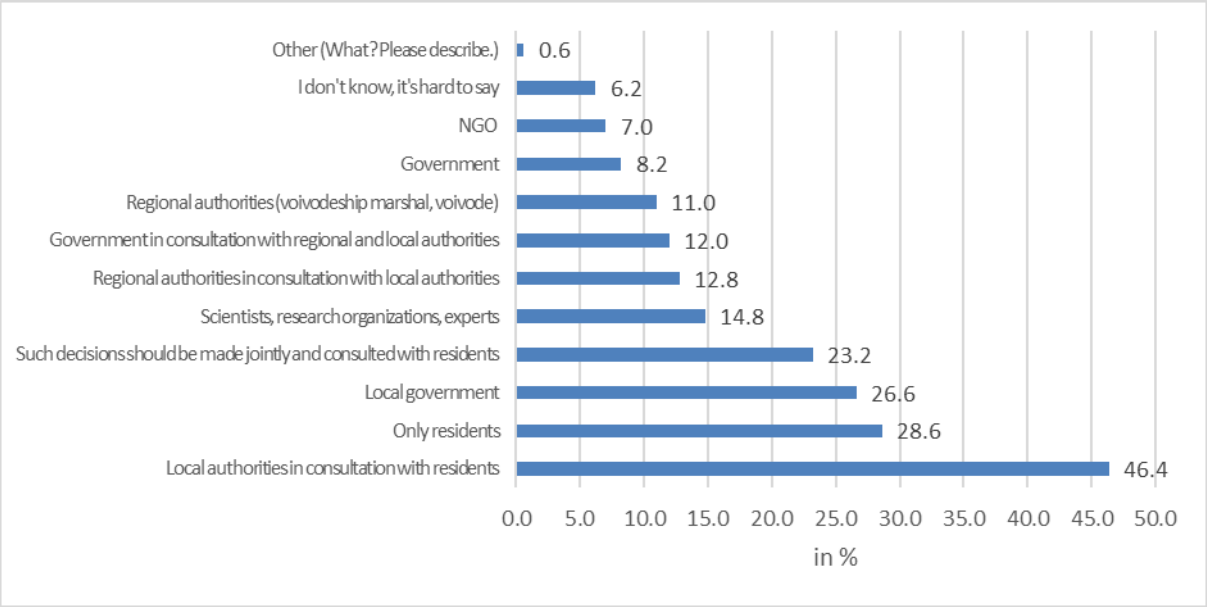


Figure 5. Local resource managers. Source: own study.

Most respondents believed that local resources should be managed by the residents themselves (28.5%) or by the local authorities—either themselves or in agreement with the residents (26.6% and 46.4% of replies, respectively). These results show how much the local communities are attached to natural resources, which represent the space where they live and operate. Some of the respondents also found that the resources could be co-managed by scientists and experts (14.8%); others took account of broader administrative and formal relationships and believed that the decision-makers could include regional or even central authorities, provided that they act in agreement with the residents (12% and 11% of replies, respectively). Ca. 6% of respondents had no opinion on this issue; a similar number would entrust the management of local resources to tertiary sector organizations.

Next, the questionnaire asked the respondents about known environmental protection measures that are taken in their place of residence and are essential in addressing local needs (Figure 6).

The most known and urgent measures included taking greater care of green areas (over 55% of replies) and promoting renewable energies (41.8%). Ranked next were measures such as reducing waste (37.4% of replies), increasing the degree of upcycling and recycling (30.8%), and increasing the number of educational activities related to environmental protection (23.4%). The activities cited by the respondents also included the amendment and enforcement of environmental regulations and the growing need for protecting and collecting water.

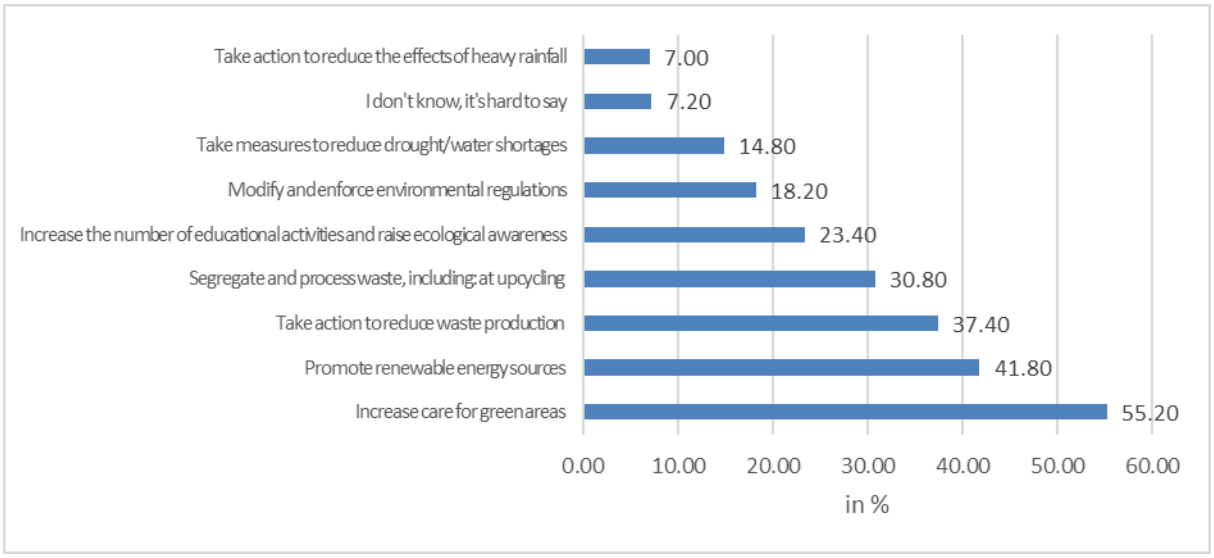


Figure 6. Essential environmental protection measures taken in the respondents' place of residence. Source: own study.

These replies were somehow consistent with what the respondents declared as environmental protection measures they take individually (Figure 7).

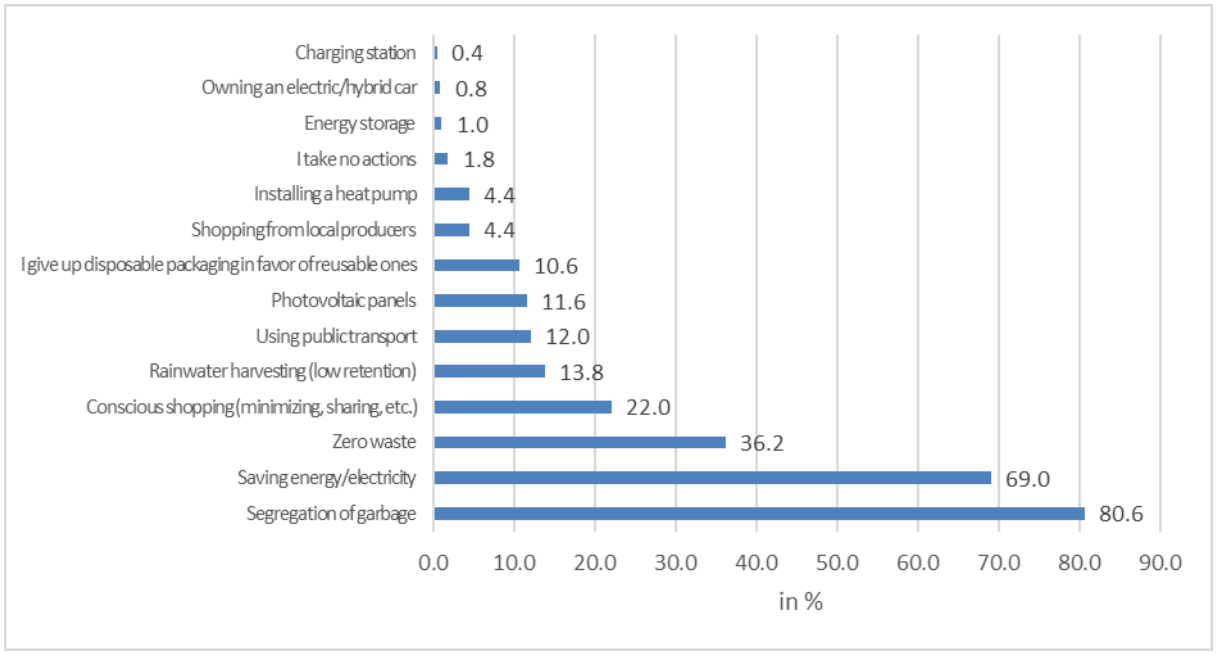


Figure 7. Environmental protection measures taken by the residents. Source: own study.

The dominant one was waste segregation (over 80% of replies), energy saving (nearly 70%), and the gradual adoption of zero-waste attitudes (36.2%). Less popular activities included collecting rainwater and what is referred to as small water retention measures (13.8%), as well as increasing the use of public transport and avoiding the use of non-degradable packaging.

Next, the respondents active at the local level were asked about the kind of support needed for the environmental measures that are already in place (Figure 8). Financial support turned out to be the most urgent need (with more than half of the replies pointing to it). Related education as well as legal and administrative support for measures taken were

of comparable importance to the interviewees (46.6% and 40.3% of replies, respectively). Moreover, one-third of the respondents expressed their interest in training on how to organize and manage environmental protection measures.

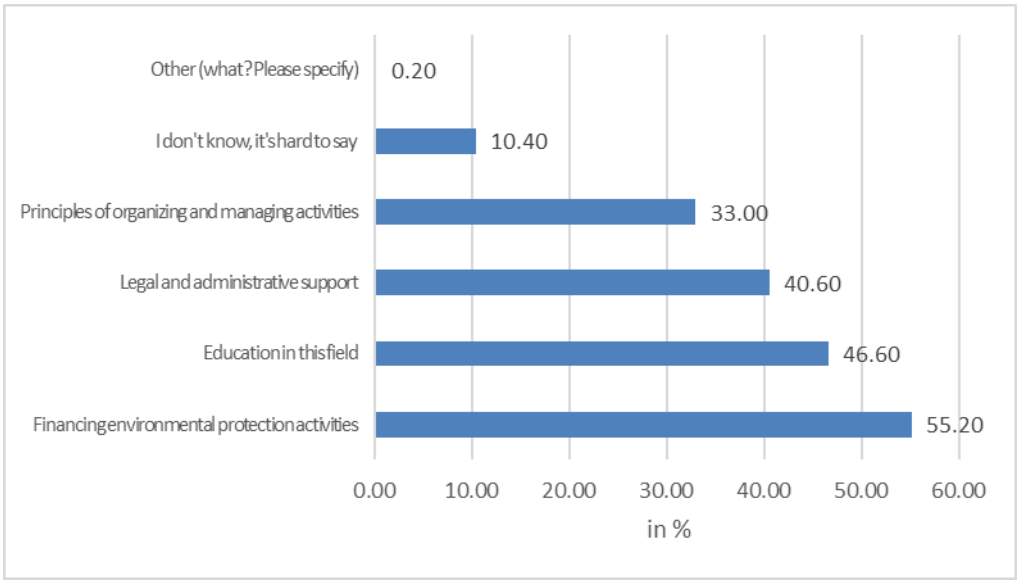


Figure 8. Preferred area of support for environmental protection measures. Source: own study.

The last aspect addressed in the study was learning how much the respondents are engaged in protecting the natural environment. Therefore, they were asked to specify their future level of commitment towards environmental protection in their place of residence. The vast majority of the respondents (74.0%) replied positively, i.e., expressed their conviction that they would continue their activity or take new measures in the future. In contrast, 23.4% of the respondents were still uncertain whether they would engage in such activities and reported that it is dependent upon their future situation (which they are unsure of). The test proved that gender and education had a highly significant impact on the replies, with $p = 0.012$ and $p = 0.006$, respectively. Note that men (5.5) declared their intent to engage in environmental measures more frequently than women (5.2) (on a scale from 1 to 7). However, previous research by Saboya de Aragão and Alfinito [49] demonstrated that women attached greater importance to environmental issues than men. Thus, this study sheds new light on that topic while also opening a new research gap.

Next, the respondents were asked to assess how much they know about the condition and protection of the environment on a scale from 1 (no knowledge) to 7 (extensive knowledge). The results revealed variation in grades (with a coefficient of variation of 26.2%), as reflected by a mean value of 4.5 and a standard deviation of 1.18 (Me = 5). The respondents' age proved to be a significant differentiating factor, as corroborated by the Kruskal–Wallis test ($p = 0.023$). Other demographic variables were of no statistical significance. The Spearman rank correlation coefficient was used in order to check whether a relation exists between how the respondents assess their knowledge and their declared intent to engage in environmental protection measures in the future. The resulting rs = 0.418 ($p = 0.000$) is indicative of a strong positive correlation.

The natural environment is a common asset of humanity and needs to be taken care of in the context of ongoing climate change. Therefore, from an economic point of view, there is a need to allocate financial resources for environmental measures. Having the above in mind, the respondents were asked about the percentage of their incomes they would be willing to donate each month to support environmental protection. The analysis of the results shows that 26.8% would not be interested at all in making such a donation, whereas 73.2% would agree to pay a certain amount each month for environmental protection efforts. Nearly half (49.7%) of the group of respondents willing to provide financial support

declared they would allocate between 1% and 1.5% of their monthly incomes to that purpose. Moreover, one in four interviewees would agree to allocate less than 1% of their monthly income. A donation of 1.5% of monthly income was quite commonly accepted, which is probably due to it being similar to the rate of the annual tax deduction for Polish public benefit purpose foundations (as specified in the tax return).

The last thing addressed in this study was discovering what makes the respondents engage in environmental measures. The results clearly show that although the intent to preserve the environment for their children and the next generations is the leading reason (64.2%), some respondents (27.6%) do so for the sake of themselves and fellow residents. In contrast, one in thirteen interviewees (8.2%) do not take such measures at all. To conclude, it is worth emphasizing that according to the results, the respondents understand the principles of sustainable development or at least the inextricable coexistence of humans and the natural environment.

5. Discussion

Many studies in the literature on the subject emphasize that local bottom-up environmental activities are strong and omnipresent around the globe [50]. The rationale behind them is the growing concern for the future of the environment—the place where humans live and intend to live in the future. The above is corroborated by a number of studies, including that carried out by the Pew Research Center in 2018, in which most respondents stated that global climate change posed a major threat to their country of residence [51]. In Eurobarometer surveys, more than three-quarters of Europeans (78%) agree that environmental issues have a direct impact on their daily lives and health. Around four in five respondents (84%) agree that EU environmental legislation is essential to protect the environment in their country [52]. Similar findings were made for Poland, a Central European country that emits large amounts of CO_2 and has not yet implemented clear regulations for environmental protection, including the obligation to separately collect waste, recycling, water protection, and green energy use. A periodic survey of the Polish population's environmental awareness has been contracted by the Ministry of Climate and Environment since 2011 and indicates that the Poles increasingly believe that environmental protection might have a positive impact on economic development at a countrywide level. Also, they tend to view the environment in their place of residence as being in a better condition than in Poland as a whole [53]. Moreover, as much as 72% of the Polish population believes that in the 2020s, the Earth has found itself in a serious condition and requires immediate action. At the same time, half of them do not know what to do in order to heal the environment [54]. The assumption behind this study was that a subjective perception of the environment as being threatened is what stimulates people to take protective measures. The findings from this study corroborate it while also being consistent with what other authors discovered [55,56]. Another finding is that engagement in environmental protection activities at the local level typically takes the form of initiatives taken by the residents who, however, expect some (usually legal, administrative, and financial) support from authorities at different levels. The highest grades were given to support obtained from local authorities and fellow citizens. Another conclusion was that the central government, as a remote authority, has a rather small impact on measures taken at the local level. Similar findings were previously shared by Collier [57], Salgado and Fidélis [58], and Roguska [59]. However, the Eurobarometer survey shows that EU citizens are concerned about the costs of pollution, with 92% of Europeans saying that businesses should cover the costs of cleaning up pollution, while 74% agree that public authorities should cover these costs [52].

This study also corroborates the authors' earlier assumption that taking environmental measures requires high levels of knowledge and environmental awareness and is furthermore correlated with gender. While the first part of these conclusions is confirmed by the views of other researchers [51,60,61], the above findings regarding the gender of those involved in such activities may seem a bit surprising. Indeed, most authors indicate women

and the youth as being particularly engaged in environmentally friendly projects [49,62–65], whereas this study found men to play a leading role in it. Aral and Jordi's [66] research also shows the influence of gender on ecological behavior. This opens a new interesting research gap that is worth exploring.

The next topic covered in this paper, i.e., assessing individuals' willingness to bear a part of the environmental protection costs, is not adequately addressed in the literature on the subject. It reinforces the authors' belief that research efforts should be continued in this area to take many more aspects into account, i.e., economic (especially income and employment), social (knowledge and education), and legal factors (the existence or absence of paths for individual contribution to nature protection efforts).

6. Conclusions and Limitations

The results presented and discussed in this paper emphasize the importance of local activity, which is the most obvious choice for the residents who engage in it, on the one hand, and provides them with the most evident outcomes, on the other. This attitude demonstrates strong similarity to the subjective theory concept by Groeben and Scheele [67], which assumes that individuals rely on their personal experience and knowledge resources in explaining what they experience through relation theories ("if/then").

It should also be mentioned that the examined attitudes indicate the return or gradual revival of concern for the common good (Latin: bonum commune), almost forgotten in the era of widespread consumerism. This, in turn, reopens the discussion on the concept of the common good economy [68] and its place in the widely promoted EU sustainable development [69].

The finding of this research provides some theoretical and practical implications.

1. Poles are aware of problems related to environmental protection in their place of residence, as evidenced by, among others, undertaking bottom-up initiatives, which, however, should be supported and integrated with the activities of local, regional, and even central authorities.
2. In the opinion of respondents, cooperation in the field of environmental protection takes place best at the local level, i.e., with the involvement of fellow citizens and local government authorities. Government initiatives that, in respondents' opinion, do not reach the local level are rated much worse.
3. Moreover, respondents emphasize that it is important to reduce waste production, in particular taking initiatives to segregate waste, save energy, increase care for green areas, promote renewable energy sources, and practically implement the zero-waste concept.
4. The main motive for taking action to protect the natural environment is the respondents' belief in the need to preserve the environment for future generations, and, as our research results show, these problems are more important for men than for women.

Finally, it should be added that while the conclusions we presented have some limitations, which result primarily from the size of the sample (500 respondents), they make an important contribution to identifying attitudes towards such an urgent problem as protecting the natural environment and preserving it for future generations. Moreover, the fact that these studies were conducted in one country makes it impossible to use them to compare results from other countries, e.g., central Europe. In subsequent research, we would like to overcome these limitations and conduct in-depth research in the international context of this region.

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