

## ENVIRONMENTAL AWARENESS OF SOCIETY AND RESULTING ENVIRONMENTAL THREATS

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**Abstract:** The aim of the research was to assess the level of environmental awareness of inhabitants of Malopolska province, which may be a basis for further deliberations on the need for environmental education in this region. The research was carried out from May to September 2017 on a representative sample of 180 respondents. This article presents the questions from the questionnaire, which made it possible to assess the level of environmental awareness and perception of current threats to the natural environment by inhabitants of Malopolska province.

**Keywords:** environmental awareness, environmental education, environmental threats.

**JEL code:** Q56

### Introduction

Development of technology, production on a mass scale, and increasing population contribute to intensified use of natural environment resources. There is increasing pressure on the environment, particularly in highly developed countries, while the amount of natural resources is not increasing. The negative effect exerted by global production and consumption on the condition of the natural environment has become a subject of interest to governments of highly developed countries in recent years. Preventing the progressive degradation of the environment and restoring its damaged components require its users to use various ways of protection (Wielewska 2015; Wielewska 2017).

Awareness of threats which results from inefficient use of natural resources is accompanied by little knowledge about the sources and effects of this action. Lack of environmental education is mainly determined by the experience of individual entities and local communities (Glinski, 1988). That is why the increase in environmental awareness and shaping such attitudes require explanation of individual problems and environmental threats in an accessible way and reference to examples from the nearest environment.

The aim of the research was to assess the level of environmental awareness of inhabitants of Malopolska province, which may be a basis for further deliberations on the need for environmental education in this region.

This article presents the results of author's research using the method of diagnostic survey with a questionnaire, which is a technique for gathering information consisting in filling out (usually individually) special questionnaires, usually with a high level of standardization, in the presence or more often in the absence of the poll-taker (Pilch, 1995). The research was carried out from May to September 2017 on a representative sample of 180 respondents. This article presents the questions from the questionnaire, which made it possible to assess the level of environmental awareness and perception of current threats to the natural environment by inhabitants of Malopolska province.

### Research results and discussion

#### 1. The essence and notion of environmental awareness

Environmental awareness is a tool for implementing the idea of sustainable development and programs aimed to accomplish it. Contemporary society is facing the challenge of changing the lifestyle. The hitherto (consumption-oriented) lifestyle leads to an uncontrolled use of natural environment resources, to its progressive degradation, which poses a threat of significant

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deterioration of the life quality of future generations. Therefore, one should try to develop a new, more responsible lifestyle, create an empathic society where it is possible to implement the principles of sustainable development. Such a society should realize the responsibility for their actions and their negative effects in a longer time perspective. It should also show a high level of environmental awareness, perceived as knowledge and attitude towards the natural environment, its problems and threats (Rzeszewski, 2005).

Popularization of environmental knowledge and shaping environmental awareness in the society must be the paramount goal and condition of sustainable development (Zuzek, Mickiewicz 2014; Kielczewski 2001). The only rational measure for shaping environmental attitudes in the society is environmental education and formation of environmental awareness in individual social groups, conducted both by institutions and social organizations or media (Terlecka, 2014). The effective environmental protection is possible when the entire society is involved in cooperation (Wielewska, Gliniak, Sobczyk, Prus, 2017).

Environmental awareness is also shaped under the influence of so-called social influence instruments used by a country, which can be divided into formal and informal. The formal instruments of influence are actions legalized by applicable laws, and even institutionalized. Then the main role played environmental education, access to information on the environment, and lobbying in legislative organizations. Informal instruments include informal environmental education (carried out based on open-access information, conversations in informal groups of interested parties), information measures (e.g. exhibitions, shows, seminars, organization of mass campaigns for environmental protection, publication and distribution of training materials), social pressure (e.g. demonstrations and manifestations aiming to draw attention to the aspects associated with threats to and protection of the natural environment), or social services (e.g. information centers) (Terlecka, 2014).

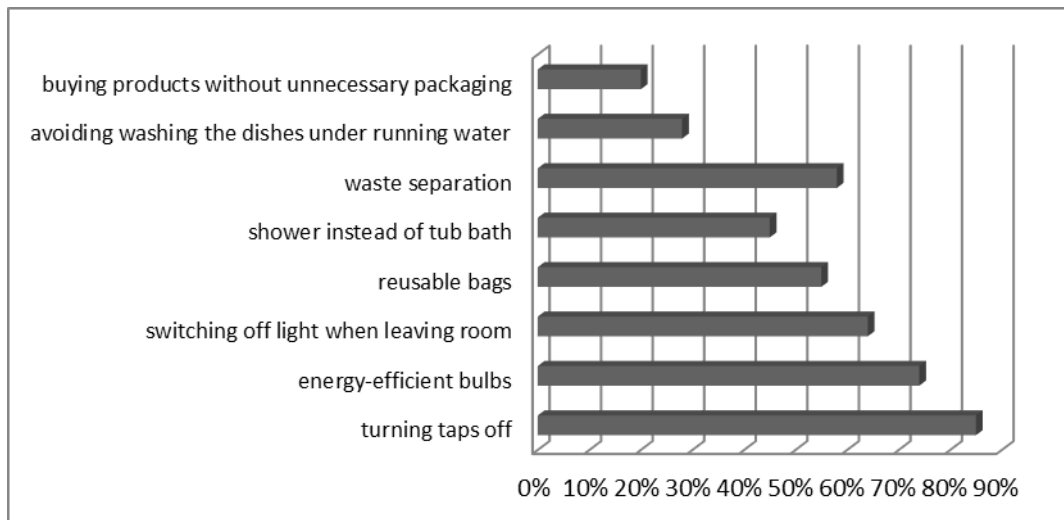
High level of environmental awareness influences purchasing decisions of the society. People involved in the matters of environmental protection correct their habits and more and more often choose environmentally friendly products. Such an attitude influences producers who are, in a sense, forced to change the manner of production to a more environmentally friendly one, taking into account the environmental aspects in all life cycles of the product (Nycz-Wrobel, 2012).

Among the actions which are favorable to popularization of environmental awareness, the following should be mentioned: showing examples of using ecology in economy, particularly when it is perceived as an integral part of a business action strategy; conducting systematic pro-environmental education of the society, especially with interdisciplinary profile; disseminating information about scientific achievements in the field of ecology and environmental protection; developing institutional and legal bases for environmental protection; creating strategies for prevention of social conflicts concerning environmental protection; creating pro-environmental lobby; as well as administrative authorities connected with shaping the awareness and popularization of the pro-environmental model of society. Environmental awareness can be expressed in all these forms (Kielczewski 2001; Tuszyńska 2008).

## **2. Pro-environmental actions taken by inhabitants of Malopolska province – research results**

The conducted research shows that inhabitants of Malopolska province have a sense of responsibility for the environment that surrounds them. 94 % of the respondents believe that they

themselves have an effect on the condition of the natural environment. The main causes for such an attitude include, above all, the care for your own and family's health (64 %) and the conviction of the validity of your actions (36 %). To implement pro-environmental behaviors, the respondents claim it is essential to introduce environmental education at all educational stages (39 %) and to create desired behavior models and promote them through media (42 %). The respondents declare that in their daily lives they try to implement behaviors that protect the environment (Fig. 1).

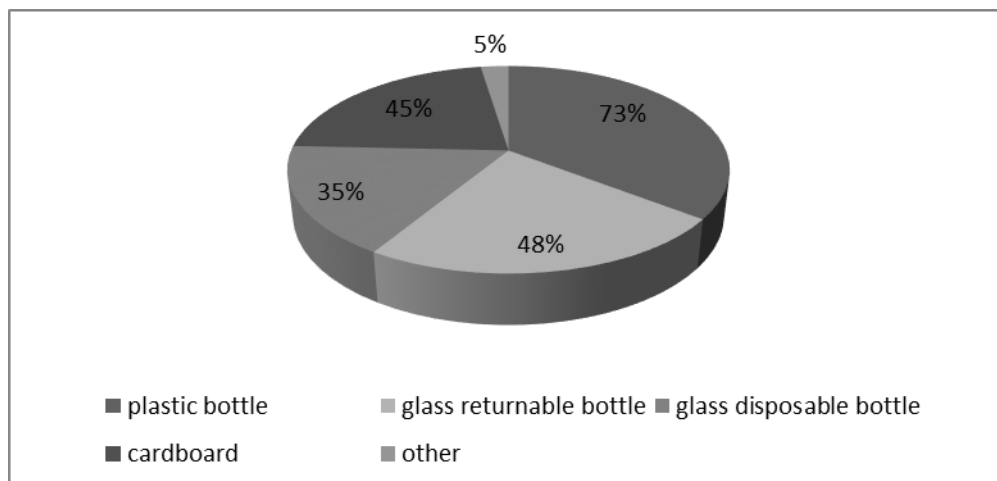


Source: author's research

Fig. 1. Pro-environmental behaviors declared by inhabitants

The most common pro-environmental actions have, above all, economic importance since they concern limiting the consumption of electricity or water in households. A much smaller number of people decide to separate waste or try to buy products without unnecessary packaging.

In 2015, the Polish Ministry of the Environment put forward an initiative to impose an obligatory deposit on each plastic bottle, the purpose of which was to encourage entrepreneurs to recycle and to save money in budgets of local governments.



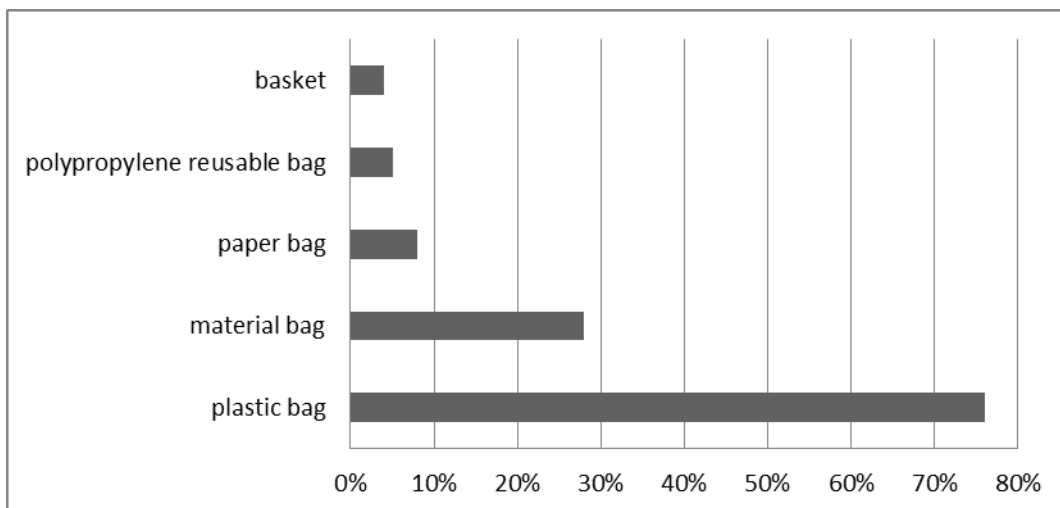
Source: author's research

Fig. 2. Types of packaging in which inhabitants usually buy beverages

The conducted research showed that, when shopping, 67 % women and 75 % men choose plastic bottles, which are a very 'difficult' recycling material. Glass returnable bottles are chosen by only 23 % women and 18 % men, beverages in disposable bottles are rarely bought, similarly to cardboard (which was chosen by 17 % men and 12 % women).

The impact of packaging, including shopping bags, on the natural environment should be assessed throughout their entire life cycle, beginning from procuring raw materials necessary for production, and ending at the stage of waste recovery or disposal. Assessment of only one stage may not take into account significant threats, which are observed at other stages. For this reason, relatively objective assessment tools are used, including packaging life cycle analysis – LCA. These tools take into account different ecological criteria (consumption of natural resources, destruction of the environment, energy consumption, emissions to air, water, soil, industrial utilization of waste, effect on human health etc.). When investigating only the phase of waste, it can be stated that packaging which, once used, can be subjected to industrial recovery processes, i.e. material recovery through recycling (material and organic) or energy recovery, is better for the environment. This means both possible usability in terms of materials from which packaging is made and availability of recovery facilities ([https://www.plastech.pl/pub/downloads/Stanowisko\\_COBRO.pdf](https://www.plastech.pl/pub/downloads/Stanowisko_COBRO.pdf)).

It has been known for a long time that plastic bags are hardest to recycle. Therefore, the best choice is reusable eco bag or material bag, while a large number of people decide to use disposable plastic bags when shopping.

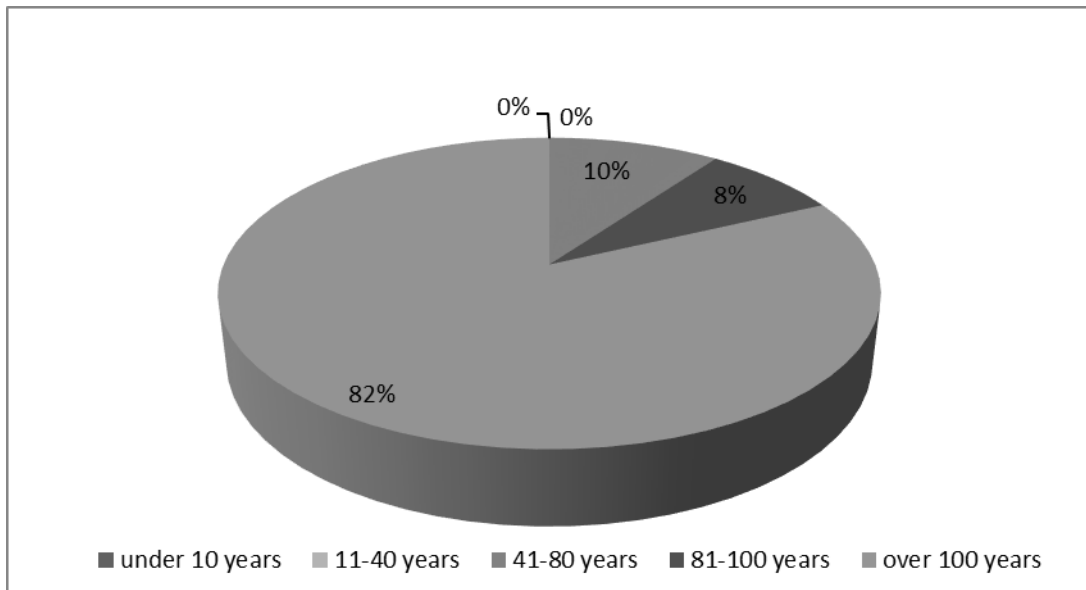


Source: author's research

Fig. 3. Types of bags the respondents choose most often

The conducted research showed that women are more thoughtful when choosing the type of shopping bag, since 32 % women use disposable plastic bags, whereas as many as 65 % men decide to use this type of packaging. In the case of reusable plastic bags, the percentage of responses was 43 % and 36 %, respectively. The most worrying is the fact that only a small percentage of respondents use reusable eco bags, baskets, or material or paper bags. That is why since 1 Jan 2018 there is a fee for using disposable plastic bags. The main purpose of the changes is to limit the use of non-ecological plastic bags and to convince consumers to use reusable packaging or packaging made of paper.

Due to the fact that plastic bag is the most frequently chosen shopping bag among the respondents, they were asked about the plastic bag decomposition time.

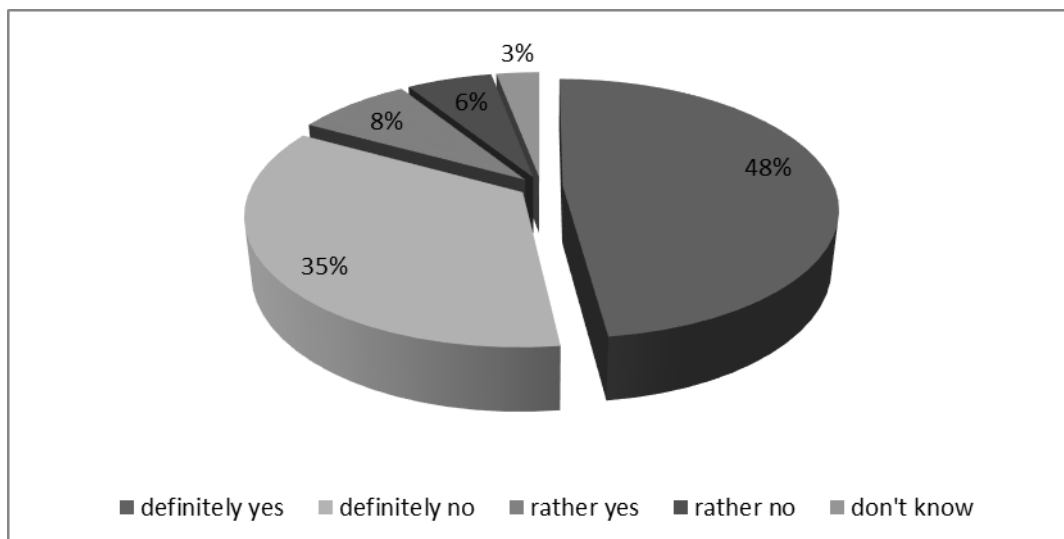


Source: author's research

Fig. 4. Plastic bag decomposition time according to respondents' answers

When analyzing the understanding of the problem, it can be stated that a significantly higher percentage of men (58 %) know that it takes over a hundred years for a plastic bag to decompose, and only 42 % women gave the same answer. Worrying might be the fact that almost 10 % respondents indicated that plastic bag would decompose in 41-80 years, which suggests they lack knowledge on this subject.

Saving water also has a significant effect on the condition of the natural environment since the more water we use, the more water needs to be treated and the more sewage (which has to be purified before discharge) is discharged ([http://ochrona-srodowiska.4fm.pl/oszczedzanie\\_wody.html](http://ochrona-srodowiska.4fm.pl/oszczedzanie_wody.html)).



Source: author's research

Fig. 5. Significance of the subject of saving water in the context of environmental protection

Only 30 % women and 33 % men gave a definite answer to the posed question, while 42 % women and 37 % men believed that saving water is rather important for environmental protection. There was a small percentage of respondents who stated that large water consumption does not have a negative impact on the environment. The results are not satisfactory, taking into account

the fact that, due to acid rain and environmental pollution, the amount of drinking water is decreasing. That is why saving it should be important to every city and village dweller.

### **Conclusions, proposals, recommendations**

The natural environment is a value which is widely accepted and declared by Polish society. However, the positive attitude to nature does not fully correspond with actual choices of environmental values and environmentally friendly consumer behaviors (Wielewska, Zuzek, 2015).

- 1) The conducted research shows that the level of environmental awareness among the inhabitants of Malopolska province to whom the research concerned is not too high. The inhabitants assess their own interest in environmental protection as average.
- 2) Based on the conducted research, it can be stated that there is still a lot to do in the field of environmental education of society. Publicizing the information on the adverse effects of human activities on the environment has initiated the process of environmental education. Education and increasing the level of environmental awareness alone are not enough. Therefore, it is necessary to change society's thinking, ideas and habits.
- 3) The interest in and care of the matters of the natural environment should be implemented into daily life. This requires administrative actions as well as legal-institutional solutions to control people's actions with respect to protection of the natural environment.

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