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EDUCATION FOR ECOLOGICAL SECURITY AND THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT AS AN ELEMENT OF RAISING PUBLIC AWARENESS

ABSTRACT: The article refers to the area of education for security, especially education for ecological security, ecological education. The aim of the article is to try to answer the question whether the legal and educational system in Poland in the field of ecological education is consistent and whether it works in practice. Both law and formal and informal education are determinants of human awareness in the field of ecology and environmental protection.

The article attempts to demonstrate that ecological education in the core curriculum is implemented in accordance with the principles of eco-development. The article discusses a wide spectrum of methods and tools that can be used in education for security, education for ecological security. In addition, the results of the research carried out at the request of the Ministry of the Environment and the level of awareness and ecological behavior of Polish residents were presented. The study was divided into several areas in terms of the specificity of the problem addressed: the greatest challenges for Poland and environmental problems, natural environment and its protection, air quality, waste management, climate change.

The comparative and descriptive method was used in the work, because it is the most adequate to present the topic taken. It allows an exhaustive explanation of individual issues. It also involves the possibility of drawing specific conclusions and standardizing the text.

KEYWORDS: education, safety, sustainable development, ecology, ecological education

EDUKACJA DLA BEZPIECZEŃSTWA EKOLOGICZNEGO I ZASAD ZRÓWNOWAŻONEGO ROZWOJU JAKO ELEMENT PODNOSZENIA ŚWIADOMOŚCI SPOŁECZEŃSTWA

ABSTRAKT: Artykuł nawiązuje do obszaru edukacji w zakresie bezpieczeństwa, w szczególności edukacji w zakresie bezpieczeństwa ekologicznego, edukacji ekologicznej. Celem artykułu jest próba odpowiedzi na pytanie, czy system prawny i edukacyjny w Polsce w zakresie edukacji ekologicznej jest spójny i czy wytyczne w podstawie programowej zawierają elementy zgodne

¹ The Main School of Fire Service; Poland.

z zasadami zrównoważonego rozwoju. Zarówno prawo, edukacja formalna i nieformalna są determinantami ludzkiej świadomości w dziedzinie ekologii i ochrony środowiska.

W artykule podjęto próbę wykazania, że edukacja ekologiczna w podstawie programowej jest realizowana zgodnie z zasadami ekorozwoju. Ponadto omówiono szerokie spektrum metod i narzędzi, które można wykorzystać w edukacji dla bezpieczeństwa, edukacji dla bezpieczeństwa ekologicznego. Przedstawione zostały wyniki badań przeprowadzonych na zlecenie Ministerstwa Środowiska oraz poziom świadomości i zachowań ekologicznych mieszkańców Polski. Badanie zostało podzielone na kilka obszarów ze względu na specyfikę omawianego problemu: największe wyzwania dla Polski i problemy środowiskowe, środowisko naturalne i jego ochrona, jakość powietrza, gospodarka odpadami, zmiany klimatu. W pracy wykorzystano metodę porównawczą i opisową. Umożliwia ona wyczerpujące wyjaśnienie podjętych zagadnień, pozwala ustalić wnioski oraz ujednoczyć tekst.

SŁOWA KLUCZOWE: edukacja, bezpieczeństwo, zrównoważony rozwój, ekologia, edukacja ekologiczna

INTRODUCTION

Education of the society regarding security is in fact the cheapest and the most effective form of preventing dangers. It constitutes a fundamental way of building population's safety. It also has a great influence upon the attitudes, values, knowledge and skills required for proper behavior in case of danger.

Education is one of the basic ways of shaping the society. Behavior, attitudes and knowledge, which together constitute people's consciousness – all depend on the level of education. Education for security is a ceaseless process embracing a set of actions, to which belong:

1. Conveying the knowledge relating to the occurrence of dangers
2. Shaping "safe" behavior and attitudes
3. Realizing the scale and types of needs in difficult situations
4. Developing the feeling of responsibility for undertaking particular actions
5. Forming proper behaving habits in hazardous situations.

Education for security should concern the whole society, but with emphasis on the habitants of areas especially endangered to situations of an unusual nature².

Ecological education is in line with the assumptions of education for security, which includes many types of education, e.g.: political, economic, military, public, psychosocial, ecological security, whose important element is the formation of ecological awareness.

The aim of the article is among others to show the assumptions of ecological education regarding the principles of sustainable development. This education is an essential element in raising ecological awareness in the public.

² Cf. A. Pieczywok, *Edukacja dla bezpieczeństwa wobec zagrożeń i wyzwań współczesności [Education for Safety in the Face of Threats and Challenges of Modern Times]*, Warsaw 2012, p.37, 66-76; M. Lorek, *Edukacja dla bezpieczeństwa jako ogniwo w systemie bezpieczeństwa [Education for Security as a Link in the Security System]*, "Education – Technique – Informatics" 4/22 2017, DOI: 10.15584/eti.2017.4.37, pp. 286 -287.

BASIC ASSUMPTIONS OF SUSTAINABLE DEVELOPMENT

The mid-twentieth century was a time when humanity began to notice the damaging effects of excessive exploitation and degradation of the natural environment. The search for new ways and ways of such management and socioeconomic development that would have the least destructive impact on the environment began. This is how the idea of sustainable development was born.

Sustainable development concerns the civilization crisis as well as ethical aspects and changes in the way we perceive reality. This is a philosophical idea in which the issues of ethics become relevant. The term sustainable development was used in the 1970s (sustainable development). The first report of the Club of Rome was created in 1972. The first Report for the President of the United States was published in 1980. Since 1994, periodic reports of the State of the World have been published. The Rio de Janeiro Declaration (Earth Charter), the Global Agenda (Agenda 21), the Framework Convention on Climate Change, the Convention on Biological Diversity, and Principles on Forests should also be mentioned here³.

In 1983, the World Commission on Environment and Development (also called the Brundtland Commission) was established. This commission developed a political concept of sustainable development and published the 1987 Our Common Future report⁴. The Brundtland Commission proposed the following definition of sustainable development as a programme not only to meet society's current needs, but also to include the right to meet its needs for future generations. It should be noted that the issue of sustainable development is more complex: indeed, it is not only for environmental protection. Sustainable development should be fair, ethically acceptable, economically viable, and take into account ecological considerations. Its overarching goal is to ensure the right quality of people's lives, while specific goals are ecological in nature: maintaining the diversity of the biological species; economic goals (e.g. reducing poverty, counteracting class differences), stable economic growth and social goals (e.g. maintaining cultural diversity, ensuring social justice)⁵.

The general and universal principle of sustainable development suggests that natural capital should be maintained at a current or higher level. This means that the consumption of renewable resources should be at the same level as the rate of production of renewable substitutes. Furthermore, pollutant emissions should be within the assimilation capacity of the environment, renewable resources must be within the system's ability to reproduce them. Maintaining the function of the ecological system is the basic principle of sustainable development, which aims at justice, prosperity, and social security.

³ B. Dobrzańska, G. Dobrzański, D. Kielczewski, *Ochrona środowiska przyrodniczego [Environmental protection]*, Warsaw 2012, pp. 252-255.

⁴ *United Nation*, un.org/documents/ga/res/42/ares42-187.htm (23.05.2019).

⁵ E. Kośmicki, *Główne zagadnienia ekologizacji społeczeństwa i gospodarki [Main Issues of the Ecologisation of Society and Economy]*, Białystok 2009, pp. 7-12.

There are many terms in the literature on eco-development, sustainable development. Sustainable development is characterized as development based on natural criteria. Economic development should be based on the utilization of renewable resources (solar, wind, livestock, arable crops) and should not cause environmental damage. It is important to maintain ecological balance in ecosystems while ensuring the well-being and security of present and future generations⁶.

Sustainable development takes into account ecological, cultural, and economic aspects. It is a broader approach than eco-development: the task of sustainable development is to eliminate economic and social threats⁷.

LEGAL BASICS OF ECOLOGICAL EDUCATION IN POLAND

The principle of sustainable development has its source in international law: it is a legal principle in international, EU and Polish law. The documents of international law are: customs, treaties, and doctrines, as well as the resolutions of international organizations. General principles, treaties, and doctrine become the most important factors for the principle of sustainable development.

The term sustainable development (otherwise termed the 'principles of sustainable development') can be found in the Constitution of the Republic of Poland: 'The Republic of Poland'. This document safeguards the independence and integrity of Poland's territory, ensures human and citizen's freedom and rights as well as their security, protects the national heritage and ensures environmental protection, guided by the principle of sustainable development."⁸

Art. 74 of the Polish Constitution (Environmental protection as a duty of public authorities) says that "Public authorities are pursuing a policy ensuring ecological security for present and future generations; Environmental protection is the responsibility of public authorities. Everyone has the right to be informed about the state and protection of the environment. Public authorities support the activities of citizens to protect and improve the environment."⁹

The Act of 27 April 2001 (Environmental Protection Law) in Art. 77 in Chapter VIII states, 'Environmental education, research in the field of environmental protection and advertising' indicates that the subject of environmental protection and sustainable development should be introduced into the core curriculum of general education for all types of schools. Article 78 says that the mass media are required to shape a positive society's

⁶ Cf. H. Bryła (ed.), *Leksykon ekologii i ochrony środowiska [Lexicon of Ecology and Environmental Protection]*, p. 60; V. Kioupi, N. Voulvoulis, *Education for Sustainable Development: A Systemic Framework for Connecting the SDGs to Educational Outcomes*, "Sustainability" 2019 11, 6104; doi:10.3390/su11216104; M. Gruchelski, J. Niemczyk, *The 2030 Agenda for sustainable development goals and sustainable, development goals – chances of implementation*, [in:] *Advances in food processing techniques* 1/2016, pp. 22-125.

⁷ S. Kozłowski, *Przyszłość ekorozwoju [The future of Eco-development]*, Lublin 2005, p. 49.

⁸ *The Constitution of the Republic of Poland of April 2, 1997* adopted by the National Assembly on April 2, 1997, adopted by the Nation in a constitutional referendum on May 25, 1997, signed by the President of the Republic of Poland on July 16, 1997. Dz.U.1997.78.483.

⁹ *Ibidem*.

attitude towards environmental protection. In Art. 79 we can find commitments to entities managing scientific, research, and teaching activities, covering the field of science or scientific disciplines related to environmental protection, to include in the programs and in their activities research on environmental issues. Art. 80 (regarding the promotion of goods or services) states that it is prohibited to display content that promotes a contradictory consumption model that would be in opposition to the principles of environmental protection and sustainable development. This applies in particular to using the image of wildlife to promote products and services that have a negative impact on the natural environment¹⁰.

ENVIRONMENTAL EDUCATION IN THE CORE CURRICULUM. THE ESSENCE OF ECOLOGICAL EDUCATION IN SCHOOLS

The Regulation of the Minister of National Education of 28 March 2017 on framework teaching plans for public schools contains content relating to various aspects of environmental education in subjects such as nature, biology, chemistry and for general education purposes. The school shapes the attitudes of children and young people in terms of respect for the natural environment (including the dissemination of knowledge about the principles of sustainable development, motivation to take action for environmental protection and developing an interest in ecology)¹¹.

Environmental education in the core curriculum. By the Regulation of the Minister of National Education of 14 February 2017 on the core curricula for pre-school and for general education for primary school, indicate inclusion of elements related to environmental protection, ecology, and the concept of sustainable development. These contents are located in various subjects throughout the entire teaching cycle, from pre-school education to post-primary education¹².

Annex 1 to the Regulation indicates that the purpose of pre-school education is to support the child's overall development. The task of Kindergarten is to enable children to develop freely in a sense of security, as well as care for mobility, safety, including road safety needs. An important element of the curriculum is to create conditions that promote safe, independent exploration of the environment surrounding the child, stimulating the development of sensitivity and enabling learning about the values and norms relating to the natural environment that are adequate to the child's stage of development. During this period, the child learns the concepts of natural phenomena such as storm, rain, rainbow, leaf falling from trees, flowering trees, seasonal

¹⁰ *The Act of 27 April 2001 Environmental Protection Law*, Dz.U. 2001 nr 62 poz. 627.

¹¹ *Ordinance of the Minister of National Education of 28 March 2017 on framework teaching plans for public schools.*, Dz. U. 2017 Poz. 703.

¹² *Ordinance of the Minister of National Education of February 14, 2017 on the core curriculum for pre-school education and the core curriculum for general education for primary school, including students with moderate or severe intellectual disability, general education for industry primary school, general education for special school preparing for work and general education for post-secondary school*, Dz.U. 2017 poz. 356.

migration of birds, freezing of water, the role of plants, animals and people in the natural environment.

Annex No. 2. Programme basic for general education for the primary school: with regard to the general education core curriculum, the school's task is to gradually introduce the child to the world of knowledge, to prepare for the student's duties and to implement them in self-development. Currently, elementary school education lasts eight years and consists of two educational stages: the first educational stage covering grades 1–3 of primary school; early school education; and the second educational stage covering grades 4–8 of primary school. Educational goals are important; they highlight the need to introduce students to the world of values, show patterns, build social relations that favor a safe one, and shape attitudes towards the world and other people. The school's task is to shape students' attitudes of respect for the natural environment. It is very important to disseminate knowledge about the principles of sustainable development, motivating students to take actions for environmental protection and developing interest in ecology. The first stage of education is implemented in an integrated form while, in the second stage, issues in the field of environmental protection and ecology are implemented mainly within the subjects of: nature, geography, biology, education for safety, and ethics.

Educational stage I (grades 1–3; early school education): early childhood education is directed towards the overall development of the child. At this educational stage, special emphasis is placed on recognizing the problems of natural environment and its exploration, learning the values and interrelationships of components of natural environment, learning the values and norms originating from a healthy ecosystem, and behaviors resulting from these values, as well as the child's discovery as a significant integral entity in this environment¹³.

Educational stage II (grades IV–VIII). In the second educational stage under the subject Nature, students have the opportunity to pay attention to their immediate surroundings and to learn about landscape components and relationships occurring in nature. Learning here takes place through observation, research and experience¹⁴.

As part of the subject Geography, a holistic approach to knowledge about the natural environment, socioeconomic knowledge and the humanities is promoted. The main goal is to understand the sense and conditions of the implementation of the principle of sustainable development, in particular, to learn about the examples of rational management, assessment of the inhabited environment, and a sense of responsibility for creating order and beauty in places of one's life. An integral part of the subject is regional geographical education. As part of this course, students have the opportunity to learn about the natural and cultural heritage of

¹³ *Ordinance of the Minister of National Education of 14 February 2017 on the core curriculum for pre-school education and the core curriculum for general education for primary school, including students with moderate or severe intellectual disability, general education for industry primary school, general education for special school preparing for work and general education for post-secondary school, Dz.U. 2017 poz. 356.*

¹⁴ *Ibidem.*

Poland and its place in Europe and the world. Biology includes content on biodiversity and the natural environment as well as its protection¹⁵.

As part of the subject education for safety, students are prepared for appropriate behavior and appropriate responses in situations posing a threat to health and life. In addition, students learn about the security of states. The mechanisms to ensure order in society are explained, too. Important here are the issues related to shaping involvement in the development of the geographical-natural, cultural, and social environment.

There are a number of assumptions that relate not only to transferred knowledge thereby derived, but also to the skills and competencies the student should acquire during the education process (at primary school in the field of natural sciences /primary' would refer to students who are 6 to 15 years of age). These mainly include: the classification of both objects and individual components of the socio-natural environment; knowledge of ecological organizations, awareness of the existence of the threats from natural environment as well as learning about natural and anthropogenic components of the environment. It is important to adopt attitudes of shared responsibility for the state of natural environment through: conscious actions for the protection of natural environment and creation of appropriate behavior towards the environment (especially in the immediate area), taking actions for the local environment; sensitizing to the beauty of nature. In relation to practical knowledge, the ability to indicate the relationship between the components of natural and socio-economic environment on a local, regional and global scale becomes particularly important; determining the impact of human activities on natural environment, adopting an attitude of respect for both natural and cultural environment. Detailed issues regarding the core curriculum concern: the relationship between the features of natural environment of selected European countries and the use of various energy sources, transformation of the suburban area and the benefits of natural environment and cultural heritage for the development of tourism. As part of school education, students design activities to preserve the values of the geographical environment and ecological balance.

As far as the analysis of school programs implemented in Poland is concerned, it should be noted that the curriculum content on ecological education, principles of sustainable development are implemented in many subjects. It can be assumed that if ecological education was carried out under one subject, then it would be implemented more systemically and more effectively. However, when reviewing the paths implemented, it should be noted that this theme is treated particularly in a practical way, with great commitment.

¹⁵ *Ibidem.*

RAISING AWARENESS OF ECOLOGICAL EDUCATION

Environmental awareness can form a part of social awareness. According to W. Markiewicz, we can define consciousness as a whole of ideas, values, attitudes, views and opinions that are characteristic of a larger group of people, defining their way of thinking. According to K. Małachowski, ecological awareness is a combination of various elements of knowledge, behavior and attitudes that interact and penetrate each other, creating a coherent whole. The basis is always social knowledge and a system of values.

There are the following types of ecological awareness:

1. colloquial ecological awareness: based on everyday contact with nature and observation;
2. ideological ecological awareness: meaning a set of beliefs, views and directives determining the implementation of ecological values. They may be the views of parties and pro-ecological movements (ideological ecological awareness) or religious ecological awareness which consists of faith and religious doctrines regarding the relationship between humans and nature.
3. ecological scientific awareness, which has its sources in natural, medical, technical and social sciences. It is based mainly on scientific research¹⁶.

One of the first surveys carried out in Poland regarding ecological awareness can be considered the study from 1983 carried out in Tarnobrzeg. (Typescript – T. Burger, Environmental awareness and needs in the scope of protection and shaping the environment of the inhabitants of the Tarnobrzeg voivodship, Institute of Environmental Development, Warsaw 1984). These studies noted that people pay more attention to local threats, e.g. those related to water pollution, logging or pests. However, studies have not shown that society feels the need to take environmental action. Research on ecological awareness has been published regularly since 2000, and the INE Report was prepared in 2008.¹⁷

In September 2018, commissioned by the Ministry of the Environment and financed by the National Fund for Environmental Protection and Water Management, tracking studies of ecological awareness and behavior of Polish residents were carried out. The study was divided into several aspects of the problem being addressed:

- The biggest challenges for Poland and environmental problems,
- Natural environment and its protection,
- Air quality,
- Waste management,
- Climate change.

¹⁶ Cf. K. Małachowski (ed.), *Gospodarka a środowisko i ekologia [Economy and the Environment and Ecology]*, Warsaw 2007, p. 37; *United Nations Conference on Environment & Development*, Rio de Janeiro, Brazil, 3 to 14 June 1992, AGENDA 21, chapter 36; R. McKeown, *Education for Sustainable Development Toolkit*, Version 2, Center for Geography and Environmental Education, University of Tennessee July 2002, pp. 13-15.

¹⁷ L. Tuszynska, A. Korwin-Szymanowska, E. Lewandowska, *Edukacja i świadomość ekologiczna polskiego społeczeństwa [Environmental education in education of teachers in a practical perspective]*, Warsaw 2015, pp. 9 -29.

The study was comprehensive, its goal was to examine the general public attitude regarding ecology and the environment as well to assess their state of knowledge and manifestations of pro-ecological behavior in everyday life. The research was nationwide; the sample was, $N = 1010$. The study was carried out as part of a multithematic, cyclical Omnibus study. The CAPI technique was used which is a method of data collection consisting of interviewing the respondent using mobile devices, on which the answers are saved. The tested sample is representative in terms of demographic variables: gender, age and place of residence (size of town and province). The maximum error of estimation for a random sample of 1000 people was $\pm 3.1\%$. However, the analyses were carried out using an analytical balance, which means that the collected data were overweighted in such a way that the sample structure corresponded to the actual structure of Polish residents. Percentage data presents weighted results, numbers were unweighted. The weighing procedure was not subjected to the questions on the record.

Research results – the most important conclusions divided into issues:

The biggest challenges for Poland and environmental problems. According to the research, environmental protection is the field in which there are the most problems to solve. The most important areas are: air pollution, garbage disposal and climate change. The most important reason for environmental protection was care for health and future generations. Poles learn about these topics mainly from television and the Internet.

Air quality. According to the Poles, the main source of air pollution are large combustion plants, including factories. Every year, the conviction that road transport is the main source of air pollution falls. Polish households still choose coal as well as connection to the heating network as the main heating source. The recommended way to improve air quality is to replace coal-fired furnaces with low-emission furnaces and to use renewable energy sources.

Waste management. About six out of ten Poles recycle waste. Every tenth person still does not know how to segregate garbage. The most commonly segregated waste is: plastic, glass, paper. About half of Poles assess the waste management system as good. Every fourth person noticed in their local community information activities related to proper waste management.

Climate change. Most Poles (9 out of 10 people) believe that climate change is a serious problem, they also express their responsibility for it. Half of the Polish population believe that the reduction of greenhouse gases should be started immediately. They also point to economic aspects of the issue¹⁸.

Ecological education aims to make Polish women aware that their lives and the quality of same largely depend on themselves. Designing ecological education should start with a diagnosis that sets forth a course of action. The results of the analysis of research on the ecological awareness of Poles show that the enforcement of the amendment to the Act on

¹⁸ *Trackingowe badanie świadomości i zachowań ekologicznych mieszkańców polski raport z badania [Tracking survey on ecological awareness and behavior of Poland residents, survey report]*, Ministry of the Environment, September 2018, gov.pl/web/srodowisko/badania-swiadomosci-ekologicznej.

maintaining cleanliness in municipalities has positively impacted the attitudes toward the environment. The fact is that more and more households segregate waste. The sense of agency in relation to the possibilities of environmental protection is increasing. Unfortunately, everyday ecological behaviour is undertaken sporadically, the economic aspect will always be more important¹⁹.

Education in Poland is carried out by universal and higher education, central and local state institutions, associations and non-governmental organizations. Education can be implemented in formal or informal settings. Formal education is understood as a system that is based on solid content and forms of learning designed from initial teaching to university. This system also includes all courses and programs offered by educational institutions. Non-formal education is all activity having the characteristics of education and upbringing but carried out outside the statutory formal school system. Non-formal education encompasses the activities that aim to expand knowledge and gain practical skills. This form is based mainly on practice and experience, it differs from the formal type mainly by methodology. It includes not only expanding knowledge and skills but also shaping attitudes and values²⁰.

We can also distinguish unofficial education which usually takes place next to the official teaching or training process. Such learning activities can also be created by learners themselves. Self-education is a way of enriching their knowledge when current education does not meet expectations or when formal education has already been completed. Accidental education refers to all situations that are unplanned and have happened unexpectedly and were a source of knowledge or experience.

The increase in ecological awareness in Poland depends largely on local programs implemented periodically. The competence of teachers in the field of environmental protection and health, as well as commitment and attitude with the good of nature in mind, are important for ecological pedagogy.

Raising public awareness in the field of education for ecological safety can be implemented using various tools. One of them is the creation of a social campaign, an information campaign. As research has shown, Poles most often derive knowledge from television and the Internet, therefore the social campaign is the most appropriate of all available tools.

An information campaign aimed at increasing public awareness is defined as a set of activities carried out using various tools (usually media), which are determined to achieve specific goals. A similar concept is social advertising addressed to the mass audience. The main task of a social campaign is to solve a certain social problem. An awareness campaign is a set of various activities planned at a specific time, directed to a specific target

¹⁹ Vide: L. Tuszyńska, *Edukacja i świadomość ekologiczna polskiego społeczeństwa* [Environmental education and awareness of Polish society], Warsaw, pdf.

²⁰ Cf. M.A. Hajer, *Ecological modernization as cultural politics*, [in:] S. Lash, B. Szerszyński, B. Wynne (ed.), *Risk Enviromental and Modernity, Towards a New Ecology*, London, New Dehli 2000, pp. 251-266; J. Ropski, *Dydaktyka szczegółowa edukacji dla bezpieczeństwa* [Detailed Didactics of Education for Security], Katowice 2013, pp.185-192.

group, whose goal is to increase knowledge, change thinking and alter behaviour relating to a specific social problem. The campaign is based on a communication and promotion process, the purpose of which is usually to change social attitudes towards a given issue or problem. In this type of venture, the most important aspect is the educational goal, which is to be achieved by transferring knowledge and skills, inclining activity.²¹

In terms of the model of social communication, the following campaign models should be indicated:

- a. information, the purpose of which is to acquire public opinion by providing information. The goal is not persuasion.
- b. a campaign to respond to stakeholders, its goal is to convince a specific group of recipients to adopt the sender's point of view. In this case persuasion becomes an important element.
- c. a social campaign whose activities are based on the involvement of stakeholders (an important point of the campaign is to cause changes which will be beneficial to all concerned). In this category, a form of dialogue based on mutual understanding, trust and acceptance is important²².

Over the past few years many social campaigns have been carried out in Poland that contribute to raising awareness about ecological education or environmental protection. The most important were:

- The Noizz.pl portal, in cooperation with Arta Szpura, started the #SuckingSucks campaign, which aimed to draw attention to the problem of using disposable straws for drinks. This was not related to smog: it was a socio-educational campaign initiated by Librus.
- I collect Plastic from the Beach - an action invented by blogger Beata Buc.
- With its Own Mug – The Polish Association Zero Waste, together with the Oddam Waste initiative, initiated an action to bring their own mug to the cafe.
- And others.

The genesis of creation and undertaking activities related to the creation of social campaigns may result from the desire to do good. The more partners willing to implement the campaign, the greater its possibilities and scope. An extremely important aspect of creating campaigns is that they reach a wide audience and that they include adults who are the hardest to reach²³.

Achieving a specific level of knowledge and changing behavior depends largely on the educational tools used. The methodology is very important.

²¹ B. Dobek-Ostrowska, *Komunikowanie publiczne i polityczne [Political and Public Communication]*, Warsaw 2006, pp. 236-239.

²² A. Lusinska, *Kampanie społeczne w służbie publicznej. Komunikowanie rządowe w Polsce w latach 1994-2015 z wykorzystaniem informacyjnych kampanii społecznych [Social Campaigns in Public Service. Government Communication in Poland in the Years 1994-2015 Using Social Information Campaigns]*, Warsaw 2019, pp. 59-64.

²³ B. Tarczydło, *Kampanie społeczne w teorii i w praktyce [Social Campaign in Theory and Practice]*, "Studia Ekonomiczne" No. 157, pp. 225-234.

There are many modern and traditional methods that are available, but it is very important to use them properly and adapt them to the recipients:

- Publications: contemporary publications are not only books, textbooks but also comics, exercise books, posters, billboards, information leaflets, brochures, stickers, etc.).
- E-learning, i.e. distance learning. It is valued primarily for its flexibility.
- Competition, games. This form is very popular among children. Learning through play.
- Audio and video materials. These can be short ads broadcast by radio, television, Internet.
- Security related websites.
- Social media. The communication channels used are social networking, e-mail, internet forum, blogs²⁴.

SUMMARY

Safety, ecology, ecological security, ecological education and environmental protection are very current and necessary areas for the proper functioning of humans and the environment. Contemporary considerations relating to studying the relationship between humans and the natural environment have become the subject of consideration in this article because of the gravity of the problem. The systemic approach to shaping human awareness of the issues related to education for security, especially ecological security, find their starting point in the basic assumptions of sustainable development and eco-development²⁵.

To sum up, the issues raised in the article refer to many aspects of ecological education in Poland (legal, formal and non-formal education as well as shaping public awareness).

The last section of the article provides indication of the need to raise public awareness in the field of environmental education through the use of relevant tools and methods. The scope of this activity should take into account the needs of the population in this area and the specificity of territorial, economic and social concerns.

The conclusions that can be presented by analyzing ecological education in Poland indicate that legal acts in this respect are correctly defined, the provisions on ecology, ecological education, eco-development and sustainable development have been considered. The situation is similar regarding formal records in the core curriculum for all levels of education in Poland. Hence, there is relatively high public awareness of ecology and environmental protection. Education includes not only children through formal education, but also adults as part of non-formal education which is implemented through various tools and methods which can also include all social campaigns.

²⁴ *Public awareness and public education for disaster risk reduction: a guide*, Geneva, 2011, pp. 40-45.

²⁵ Cf. Shih-Yeh Chen, Shiang-Yao Liu, *Developing Students' Action Competence for a Sustainable Future: A Review of Educational Research*, "Sustainability" 2020, 12(4), 1374; doi.org/10.3390/su12041374; *Agenda 2030 – Education and Lifelong Learning in the Sustainable Development Goals*, Agenda 2030 – Education and Lifelong Learning in the Sustainable Development Goals, IPE International Perspectives in Adult Education, 2016, pp. 25-29.

An analysis of the presented aspects of ecological education in Poland indicates that this subject is implemented in a comprehensive and correct way. However, this does not mean that the current state of affairs should not be improved, even by introducing a separate subject in schools or intensifying common activities for environmental protection.

It is worth noting at the end that in the article many issues were only indicated and discussed very briefly, due to the editorial restrictions. However, the topic of education for security, including environmental education, will be continued and thoroughly analyzed.

Education is also one of the basic ways of shaping society. Habits, attitudes and knowledge which together constitute people's consciousness, all depend on the level of education people receive.

Practicing education for security, including education for ecological security, ecological education, must be taken into account in terms of the following elements: hazards, target group, tools. Education for security is an extremely important issue that requires the involvement of many parties: the government, the relevant departments and organizations and society as a whole²⁶. Comprehensive, regular and large-scale actions involving all the citizens can have the desired effect: raising the level of public awareness of safety.

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²⁶ R. McKeown, *Education for Sustainable Development Toolkit, Version 2*, Center for Geography and Environmental Education University of Tennessee, July 2002, pp. 16-23.

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