

THE ENVIRONMENTAL COMPONENT OF THE CONCEPT OF SUSTAINABLE DEVELOPMENT IN THE ACTIVITIES OF INSTITUTIONS OF HIGHER EDUCATION IN UKRAINE

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Abstract. *The article highlights the impact of teaching special educational disciplines on the formation of environmental awareness among students of Ukrainian universities and the importance of this process in the implementation of the goals and objectives of sustainable development of Ukraine. The purpose of the article is to determine the role of the ecological component of sustainable development in the teaching of educational disciplines in institutions of higher education of Ukraine. The scientific novelty lies in the fact that for the first time, based on the analysis of the content of the syllabi of individual academic disciplines taught in Ukrainian universities, the impact of such teaching on the formation of environmental awareness of students of humanitarian and technical specialties and their readiness to implement the tasks of sustainable development of Ukraine has been determined. The research confirmed the connection between teaching environmental disciplines for students and the formation of a sustainable idea about the global problems of humanity. At the same time, most of them have lack of comprehensive idea of the prospects of sustainable development, the content of its components and the specifics of the formation of connections between them. It was determined that the ecological component of the concept of sustainable development is embodied in the teaching of a number of academic disciplines in universities of Ukraine. The majority of students express concern about the facts of environmental pollution and realize their connection with global problems of humanity, worrying about their own safety. In general, the instructors managed to form students' ideas about the global problems of humanity and the prospects for overcoming them, and the level of environmental awareness of the respondents turned out to be relatively high. In this regard, perhaps it would be worthwhile to introduce the teaching discipline "Fundamentals of sustainable development" for students of all majors, replacing it with environmental disciplines.*

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Introduction. The concept of sustainable development appeared as a result of the synthesis of economic, social and environmental components. According to the main provisions of the concept of sustainable development, it should ensure the integrity of biological and physical natural systems, and the main attention is paid to preserving the ability of ecosystems to adapt to changes, among which the spread of urbanization is highlighted. In addition, there are concepts of sustainable development, the content of which is often dictated by ideas about the economic interests and needs of each individual country. In such concepts, the provisions of the concept of sustainable development are often distorted in favor of certain political forces or powerful financial and industrial groups. In

this case, the term “sustainable development” is mainly associated with the steady growth of economic indicators, the development of certain regions of the country, its settlement structure, and measures to preserve the environment lead to unsystematic actions, a certain improvement of the sanitary living and working conditions of citizens.

It is important for Ukraine that the reconstruction of settlements, production facilities, and transportation routes destroyed during the Russian-Ukrainian war should take place in line with the concept of sustainable development, focused on the ability of future generations to meet their needs. It is known, for example, that the desire to ensure the energy security of the state contributed to the increase in the volume of well drilling focused on the production of shale gas, and the need to increase jobs – to the allocation of land plots for production needs without coordination with local self-government bodies. In this regard, there are risks associated with the fact that the maximization of profits will be achieved, including at the expense of a frivolous attitude to environmental pollution.

In such conditions, the role of institutions of higher education in the formation of a caring attitude towards the environment can be reduced to the formalization of the training of specialists of the relevant profile. To test this hypothesis, a survey was conducted of students for whom disciplines related to nature protection are professional or auxiliary. The comparative analysis made it possible to determine the impact of teaching on the attitude of student youth to environmental protection with the determination of priorities of economic activity, protection of nature and care for future generations. In addition, a comparative analysis of the content of the syllabuses of educational disciplines made it possible to single out the problems to which their authors pay the most attention. The combination of scientific abstraction, sociological, cultural and psychological methods made it possible to find out the place of educational courses related to nature protection in the formation of environmental consciousness of students, as well as the influence of the readiness of the young generation to implement innovative measures in line with the concept of sustainable development.

Historiography. Some aspects of the defined research topic are presented in the papers V. Trehobchuk (Trehobchuk, 2002), E. Libanova (Libanova, 2014), V. Shevchuk (Shevchuk, 2007; Shevchuk, 2010) etc. The authors mainly focused on the analysis of the connection between nature management and environmental security. However, the process of forming the ecological consciousness of the youth of Ukraine still needs careful research and assessment of the prospects for its further modernization.

Aim. The purpose of the study is to determine the role of the ecological component of sustainable development in the teaching of academic disciplines in institutions of higher education of Ukraine.

Methodology. The principles of comprehensiveness and historicism are applied in the work. The research uses methods of comparative analysis, as well as scientific abstraction, sociological, cultural and psychological methods.

Results and Discussion. The analysis of the content of the study load of students of Ukrainian institutions of higher education allows us to state that most of the disciplines related to environmental protection are taught during the training in the specialty 101 – Ecology. Institutions of higher education organize the teaching of the academic disciplines “Ecology”, “General Ecology”, “Biodiversity and Environmental Protection”, “Ecology of Urban Systems”, “Landscape Ecology”, “Protected Affairs”, “Techno-Ecology”, etc. However, the analysis of the direction of the educational process shows that in some cases the teachers do not set themselves the goal not only to convey to

students the main provisions of the concept of sustainable development, but also to influence the formation of environmental awareness.

Thus, the content of the relevant syllabi shows that at the University of Prykarpattia named after Vasyl Stefanyk, the faculty teaches the academic disciplines “Biodiversity Protection” (the goal is the formation of students’ knowledge and skills in the field of conservation and rational use of biodiversity), “Nature Protection and Conservation Affairs” (the purpose of teaching the course: formation of students’ system of knowledge and skills in the field of environmental protection), at the National University of Civil Defense of Ukraine at the Faculty of Technogenic and Environmental Safety – “Organization and Management in Environmental Protection Activities”. The purpose of teaching the last discipline is the professional orientation of ecologists in the field of development and practical use of modern tools of environmental regulation and policy in the conditions of a transition to a market economy, preparation of students to independently solve professional tasks on the basis of holistic ideas about methods of managing environmental activities to ensure stable development of social and ecological systems of the state. The purpose of teaching the course “Biodiversity” at the Lviv National University named after Ivan Franko is the need to expand students’ biogeographical knowledge of biodiversity, to acquaint students with the biodiversity conservation system that exists in Ukraine and the world, as well as the sustainable use of its components.

The discipline “Landscape Ecology” is taught at the National University of Natural Economy and Nature Management. The purpose of teaching is to acquire theoretical knowledge and acquire relevant practical skills regarding the general concepts of the role of landscape ecology in the study of natural reality, assessment and forecasting of the state of geosystems, and in solving practical problems of rational nature management. To acquaint students with the principles of spatial and systemic differentiation of the geographic envelope, the peculiarities of its functioning and dynamics.

At the Bilotserkiv National Agrarian University, the educational discipline “Nature Reserve” is taught, the purpose of which is to provide future specialists with a complex of knowledge on the theoretical and practical basis of nature protection, organization, planning and implementation of nature protection activities, the formation of students in systemic ecological thinking and the skills of making optimal management decisions in the field of nature reserve, the effectiveness of nature protection activities and the balanced management of forestry, hunting and horticulture.

Instead, the purpose of studying the academic discipline “Bioecology”, which is taught at the Vinnytsia National Agrarian University, is the formation of future specialists in the appropriate practical skills and practice of applying knowledge of biology and ecology in everyday life, assessing their role for the sustainable (balanced) development of humanity, science and technology, the formation of students’ ecological outlook, knowledge about the interaction of living organisms, their populations and groups with each other and with the environment, the peculiarities of the functioning of ecosystems of different hierarchical levels under the influence of natural and anthropogenic factors, as well as the ecological foundations of balanced nature management.

The State University of Trade and Economics and Kyiv National University of Economics named after Vadym Hetman pay the most attention to the problems of sustainable development when teaching academic subjects. In general, these universities are characterized by a comprehensive approach to the formation of students’ environmental awareness and their readiness to implement the concept of sustainable development while preserving the balance of its elements.

In a number of Ukrainian universities, the teaching of the study discipline “Fundamentals of Ecology” is organized. The purpose of such teaching is determined, for example, to acquire the knowledge needed in the design of radio-electronic equipment, the selection of ultra-high frequency devices and antennas, the study of electrodynamics and the propagation of radio waves (Separate structural unit “Kryvyi Rih Professional College of the National Aviation University”). In addition, in a number of universities, the discipline “Fundamentals of Ecology” belongs to the elective category. This also applies to some faculties where training is carried out by specialty 101 – Ecology.

In such conditions, when teaching academic disciplines, lecturers are mainly focused on the formation of students not so much environmental awareness, but practical skills related to the profession they are trying to master. Environmental problems are not given priority. Therefore, there are potential risks that students may develop a consumerist attitude towards nature and a lack of ideas about the components of sustainable development. At the same time, it is noticeable that for students of natural sciences, the emphasis in teaching is on the ecological component of sustainable development, and for economics students – on the economic component. Such an approach often leads to the formation of a one-sided view of sustainable development, and therefore does not contribute to the formation of a comprehensive understanding of its features and is not aimed at the formation of environmental awareness.

In the context of this study, for example, the lack of focus on the formation of ideas about the close connection of economic development with natural limitations is cause for concern. Often, such an approach is transformed into a belief in the expediency of ensuring the interests and needs of people living now, not for the benefit of posterity. The threat of meeting one’s own needs at the expense of future generations is especially important in the context of overcoming the devastating consequences of the Russian-Ukrainian war. If such consequences will be overcome on the basis of modern corporate interests of large financial and industrial groups with the indifferent attitude of the majority of citizens, then conditions may be formed in the future that will significantly complicate the sustainable development of the state.

The statement about the existence of difficulties in the formation of environmental consciousness in institutions of higher education of Ukraine is mostly confirmed by the results of a questionnaire survey of students conducted on the basis of the Cherkasy National University named after Bohdan Khmelnytskyi. Of interest are the results of a survey of students of technical and humanitarian specialties, where special disciplines related to the ecological component of the concept of sustainable development are not taught, and of the Educational and Scientific Institute of Natural and Agrarian Sciences, for which the teaching of such educational disciplines is organized.

It should be noted that about 90 % of students of technical specialties (T) and 96 % of students of humanitarian specialties (H) are concerned about problems related to the protection of the natural environment (Figure 1). At the same time, 45 % of students of technical specialties did not participate in activities related to nature protection. Such an indicator among humanitarians is 41 % (Figure 2). Students’ attitude to environmental pollution was most influenced by information about global problems of humanity (T – 56 %; H – 61 %) and warnings about their own health (T – 22 %, H – 13 %). Instead, ideas about the stable development of the state are important for only 4 % of students of technical specialties and for 11 % of humanitarians (Figure 5). Most of the students of both specialties would make remarks to relatives or close people if they harmed nature in one way or another (Figure 3). At the same time, significantly fewer respondents would make such a remark to strangers (Figure 4). The main caution in this case was the fear of the possible use of violence by

those who would need to make a remark. At the same time, a relatively large part of the respondents expressed their readiness to independently eliminate the damage to nature, if those who did it did not listen to the relevant remark. Most of the interviewees noted that they often come across facts when, during the discussion of certain problems in social networks, other communication participants do not realize the negative consequences of their actions in relation to nature. In the comments, you could also often find the statement that cleaning in parks and squares does not change much, since most Ukrainian citizens are not aware of environmental pollution.

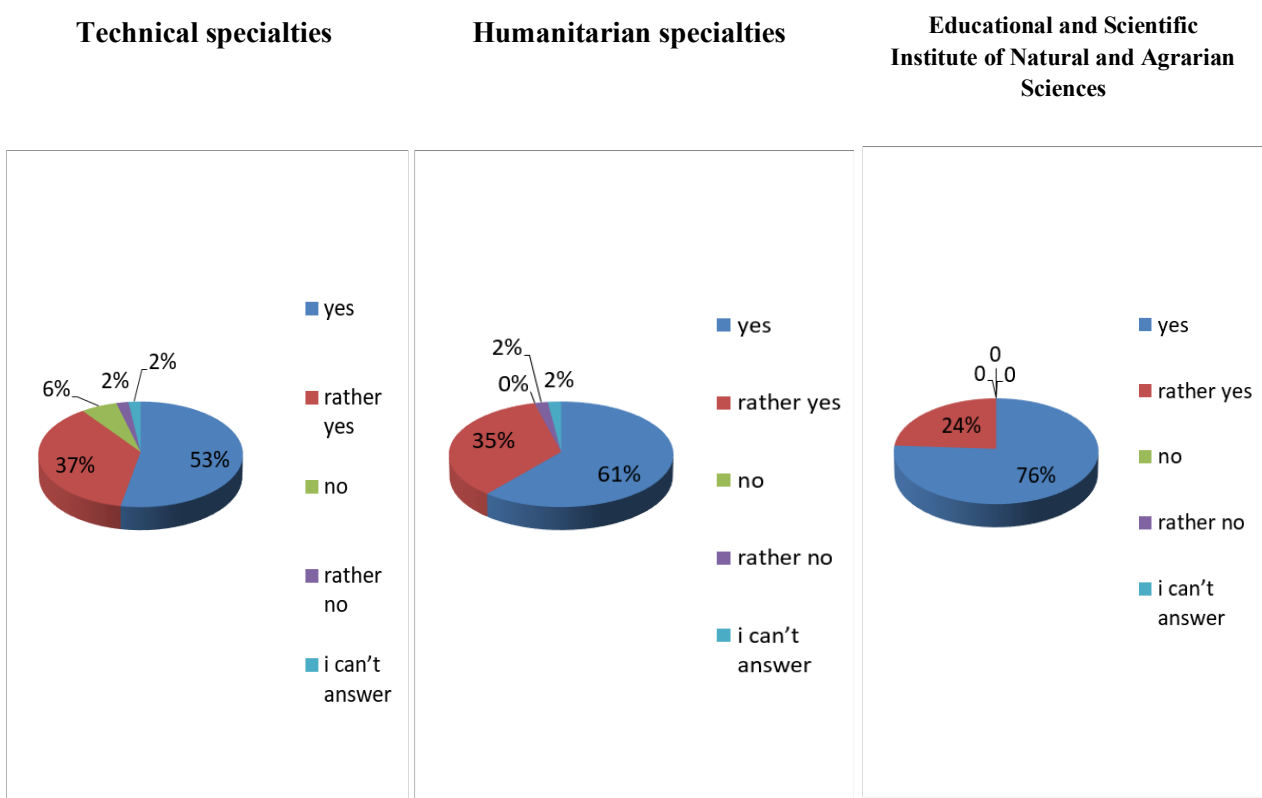


Fig 1. Are you concerned about environmental issues?

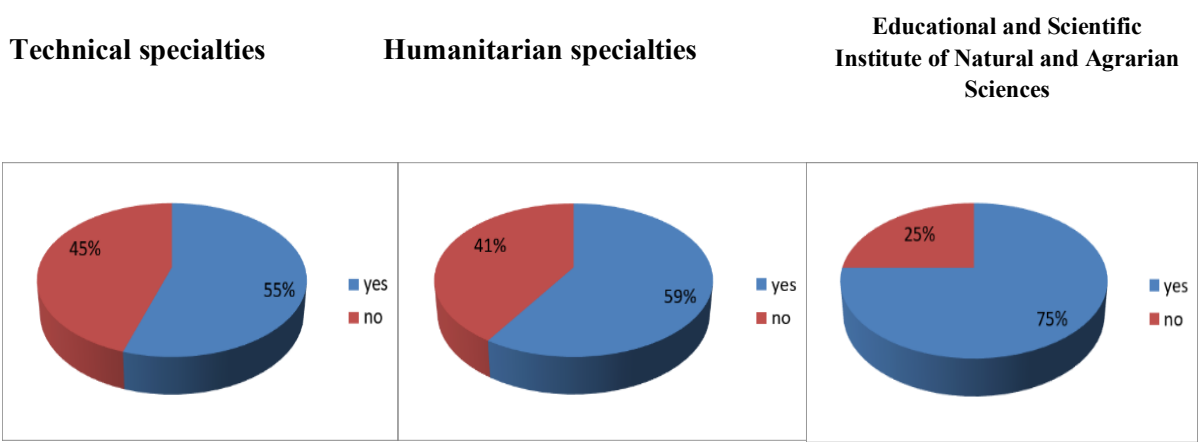


Fig 2. Have you personally participated in activities related to environmental protection?

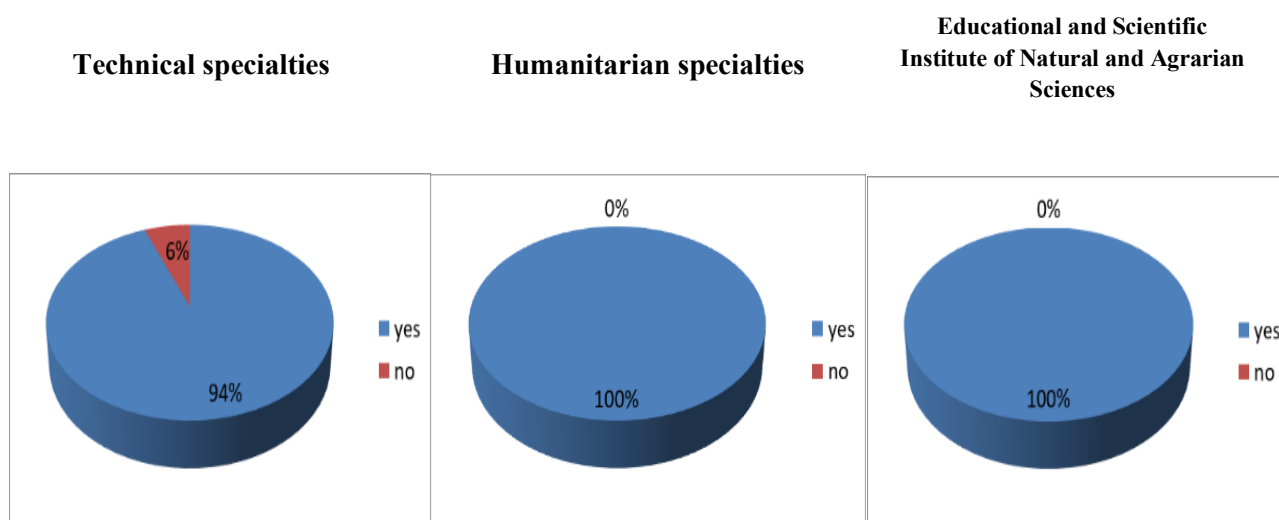


Fig 3. If someone you know was involved in environmental pollution, would you make a remark to him/her?

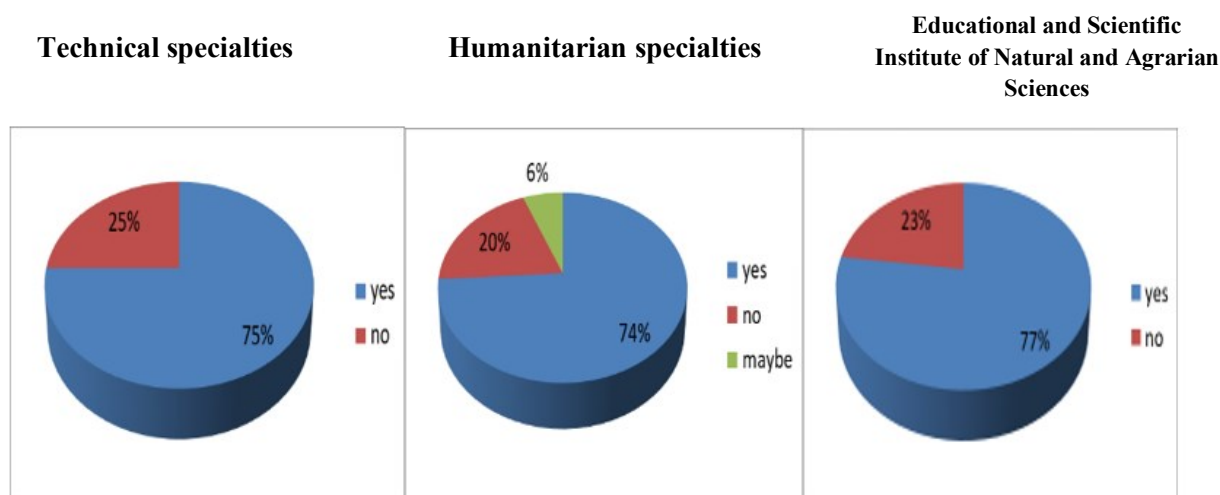
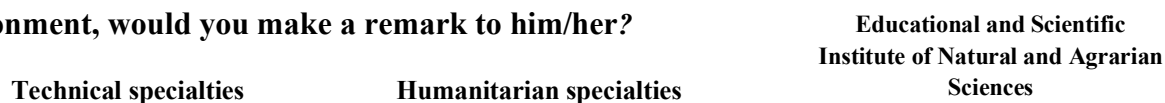


Fig 4. If a bystander was involved in polluting the environment, would you make a remark to him/her?



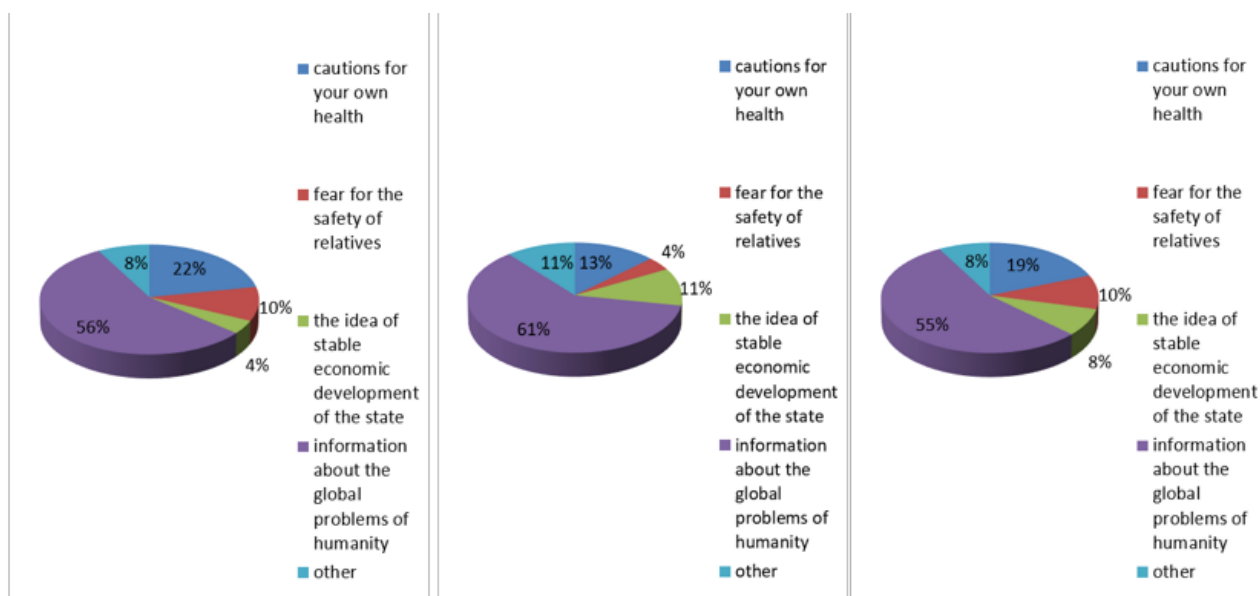


Fig. 5. What had the greatest impact on your attitude to environmental pollution?

Conclusions. The ecological component of the concept of sustainable development is embodied in the teaching of a number of academic disciplines in Ukrainian universities. In some of them, such disciplines are optional. Their priority as compulsory disciplines is more characteristic of economics and natural sciences. The results of the survey allow us to note the tendency that the majority of students express concern about the facts of environmental pollution and are aware of their connection with global problems of humanity, worrying about their own safety. The answers and comments of the students of the Educational and Scientific Institute of Natural and Agrarian Sciences testify to their somewhat greater awareness of the current problems of sustainable development. However, the lack of a comprehensive understanding of the prospects of sustainable development is noticeable, as most students associate it mainly with its ecological component. Thus, lecturers generally managed to form students' ideas about the global problems of mankind and the prospects for overcoming them, and the level of environmental awareness of the respondents turned out to be relatively high. But most of them lack a comprehensive idea of the prospects of sustainable development. In connection with this, perhaps it would be worthwhile to introduce for students of all specialties the teaching of the educational discipline "Fundamentals of sustainable development" with the replacement of its ecologically oriented disciplines.

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