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EDUCATIONAL PRACTICES OF UPDATING THE RELATIONS OF UKRAINIAN SOCIETY WITH THE ENVIRONMENT

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Abstract. *The article examines the problem of the development of environmental education in the process of professional training of specialists in higher education. Particular attention is paid to the impossibility of achieving some goals of sustainable development in Ukraine due to conditions of a full scale war, namely: overcoming poverty and hunger; the possibility of obtaining a quality education; providing the professional services in the field of health care; achieving equality and social justice, providing access to clean drinking water, energy resources, preserving ecosystems. Distinguished principles of sustainable development: satisfaction of basic human needs taking into account the possibilities of environmental resources; combining the balance of nature conservation and social development; achieving social equality and justice; ensuring conditions for self-determination and cultural diversity; preserving the integrity of ecosystems; organization of effective environmental education in the realities of today's Ukraine. It is noted that nature sciences teachers have a leading role in ensuring educational transformations in the aspect of education for sustainable development, and their professional training should be carried out taking into account educational, practical, research, self-education, volunteer activities. Phasing of the organization of professional training of future teachers of natural sciences in the context of sustainable development has been proposed to ensure achievement of goals of sustainability. The practical experience of environmental research at Hryhorii Skovoroda University in Pereiaslav has been considered, taking into account various forms of environmental education.*

Keywords. *environmental education, professional training, goals of sustainable development, principles of sustainable development, future teachers of natural sciences.*

The introduction of European standards into the national system of higher education is a prerequisite for Ukraine's entry into unified European educational space. The specified assumption will contribute to the formation and realization of a higher education seeker as a professional capable of functioning effectively in the conditions of the modern labor market without transnational borders.

Due to this, a cohort of regulatory and legal documents has been developed in Ukraine: the Project of the Sustainable Development Strategy of Ukraine till 2030 [4], the Sustainable Development Strategy «Ukraine – 2020» [5], the Law of Ukraine «On Higher Education» [1], etc. Their content encourages the creation of such an educational environment in pedagogical universities, which determines the formation of a modern specialist that is capable of critical thinking, autonomously solving problem situations, and is mobile in the process of professional activity. Therefore, the only alternative for the further development of humanity in the conditions of the intensification of globalization problems is the realization of the goals of sustainable development. After all, sustainable development education will lead to the emergence of a new educational concept, which will be oriented towards the harmonization of relations between society and the environment and will encourage a change in the consciousness of future generations. Unfortunately, there is currently no universal model of education in the interests of sustainable development. Each country develops its own educational trajectories, which depend on national characteristics (economic development, socio-political system, religion, cultural heritage, mentality, etc.). The UN Summit on

Sustainable Development, which took place in September 2015 as part of the 70th session of the UN General Assembly, contributed to the process of universalization of the stated problem. The final document of the Summit «Transforming our world: the agenda for sustainable development until 2030» defined 17 Sustainable Development Goals, namely:

- 1) overcoming poverty;
- 2) overcoming hunger, ensuring food security and improving nutrition, encouraging rational agriculture;
- 3) ensuring a healthy lifestyle and well-being of people of any age;
- 4) ensuring comprehensive and fair, high quality education and encouraging the possibility of lifelong learning;
- 5) ensuring gender equality, expanding the rights and opportunities of all women;
- 6) ensuring sustainable management of water resources and sanitation;
- 7) ensuring access of all people to affordable, reliable and modern sources of energy;
- 8) promotion of continuous, sustainable economic growth, full and productive employment and decent work for all;
- 9) creation of sustainable infrastructure, promotion of sustainable industrialization and innovation;
- 10) reduction of inequality within countries and between countries;
- 11) ensuring the openness, safety, and environmental sustainability of settlements;
- 12) ensuring the transition to rational models of consumption and production;
- 13) taking urgent measures to combat climate change;
- 14) conservation and sustainable use of oceans, seas and marine resources in the interests of sustainable development;
- 15) protection and restoration of terrestrial ecosystems and promotion of their rational use, rational forest use, combating desertification, stopping the process of land degradation and loss of biodiversity;
- 16) promoting the development of a peaceful and just society;
- 17) strengthening the means of implementing the Global Partnership in the interests of sustainable development [6].

In Ukraine, at the state level, the Sustainable Development Goals are established as guidelines for the creation of relevant strategic documents. The problem of implementing global goals has been considered, taking into account the dynamics of national development. The result of such work has been the development of a national system containing 86 tasks. Outlined tasks of national development, selected indicators for monitoring their implementation and target benchmarks until 2030 were given in the National Report «Goals of Sustainable Development: Ukraine» [3]. In fact, this system is the basis for further comprehensive monitoring of the country. Unfortunately, due to today's events in Ukraine, the global community has to reconsider their Sustainable Development Goals. Russia's military actions have caused serious obstacles to achieving such sustainable development goals as overcoming poverty and hunger; the possibility of obtaining a quality education; provision of professional services in the field of health care; achieving well-being; achieving equality and social justice, providing access to clean drinking water, energy resources, preserving ecosystems.

The main principles of sustainable development include:

- satisfaction of the basic life needs of a person, taking into account the possibilities of environmental resources;
- a combination of the balance of nature conservation and the development of society;
- achievement of social equality and justice;
- ensuring conditions for self-determination and cultural diversity of individual groups;
- preserving the integrity of ecosystems;
- the organization of effective environmental education in the realities of today's Ukraine.

Certain aspects of the problem of environmental education for sustainable development in the professional training system are considered in the works of O. Álvarez-García, J. Sureda-Negre, R. Comas-Forgas (2015); Boca Gratiela Dana, Saracli Sinan (2019); J. Braus, D. Wood (2019); EDL. Chavez, MNL. Chavez, JAV. Menendez (2019); H. Yonas (2001); A. Kyridis, E. Mavrikaki, H. Tsakiridou, J. Daikopoulos, H. Zigouri (2021); Ningrum, Zarah Baby, Herdiansyah, Herdis; V. Zeqir, M. Behxhet, K. Zenel (2015), I. Koreneva (2018) and others.

Sustainable development requires the development of a new concept of education aimed at complex and dynamic approaches to critical thinking, harmonious and rational functioning of individuals in social and natural environments.

I. Koreneva notes that the content features of sustainable development education are the integration of ecological, social, and economic aspects. The ecological aspect consists in the formation of ecological competence: the assimilation of the system of ecological knowledge and the formation of the abilities and skills of ecological activities related to ecological consciousness, ecological thinking, and ecological values. The social aspect reflects the conditions of existence of people in society, their way of life and activities and reveals the broad issues of legal, valeological, civic education, education on security issues, gender equality, multiculturalism, etc. It involves revealing the conditions of people's life and the peculiarities of their interaction in the context of achieving sustainable development. The economic aspect of sustainable development education is related to issues regarding sustainable social and industrial relations and economic life [2, p. 116].

The conditions for fair and sustainable development of Ukraine include:

- 1) effective cooperation between business, the state, communities and citizens;
- 2) ensuring a balance between the economic, social and ecological interests of the state, region, and citizens;
- 3) implementation of the strategy of adapting society to climate change;
- 4) transition from traditional energy carriers to energy-saving ones. The specified conditions can be fully realized only in a free Ukraine freed from the occupiers.

Implementation of the ideas of sustainable development of the professional training of teachers of natural sciences involves students acquiring knowledge about restoring the population of rare and endangered species, which is the basis for the development of sustainable nature management in the country. The role of a direct participant in the formation of an ecological worldview has been assigned to the modern generation. Creation of economic and political conditions to ensure ecologically stable development is possible only on the basis of reorientation of human consciousness. At the same time, the introduction of ideas of sustainable development into the process of professional training of specialists, especially teachers of natural sciences, is of particular importance. After all, taking into account the specifics of professional training, they are best acquainted with the concept of sustainable development. Therefore, it is natural science teachers who should become the leading agents of social

transformations regarding the movement towards sustainability, the subjects of ensuring the prerequisites for the co-evolutionary development of society and the biosphere.

In order to achieve the effectiveness of education for sustainable development, it is necessary to consider it in two aspects, namely: integration of education for sustainable development into educational disciplines, educational and professional programs and training courses; development of separate programs for sustainable development. Their implementation involves spreading positive experience in education, strengthening cooperation and partnership between participants in the educational process, promoting understanding of the essence of existing environmental problems, and introducing innovative approaches to the professional training of specialists.

The organization of professional training of naturalists in the aspect of sustainable development involves the following stages:

I stage – analysis of the experience of teacher training in European universities in terms of their readiness for professional activity in conditions of sustainable development;

II stage – modernization of the content of educational and professional programs «Secondary education (Biology and human health)», «Secondary education (Natural sciences)»;

III stage – introduction of the educational component «Environmental education» into the educational process of Hryhorii Skovoroda University in Pereiaslav (development of educational and methodological complex and educational and methodological manual); development and implementation of the «Education for Sustainable Development» training program for practical teachers of natural sciences;

IV stage – organization of a pedagogical experiment with the involvement of partner universities;

V stage – approbation of the research results through participation in conferences of various ranks, round tables and webinars; publication of scientific studies in the leading European and domestic publications and those included in scientific and metric databases; organization and holding of annual international scientific and practical conferences «Education for sustainable development: reality and prospects»; publication of the monographic work «Modernization of the content of professional training of science teachers on the basis of education for sustainable development: EU experience for Ukrainian universities»;

VI stage – popularization of the course by placing information and materials of the educational course on the information portals of partner institutions; in social networks, freely available information resources; holding open lectures, seminars, trainings for a wide range of interested parties; introduction of advanced training courses for teachers and lecturers of educational institutions of Ukraine, etc.

The main practical areas of ecological research at Hryhorii Skovoroda University in Pereiaslav are:

- Biodiversity study of the «Biloozerskii» National Park;
- justification for the need to create a regional landscape park «Studenivskii»;
- the work of the problem student group «Monitoring studies of populations of rare and potentially significant species of medicinal plants»;
- master's studies on the topic: «Using the method of bioindication of ecological monitoring of the Alta River», «Comprehensive assessment of the quality of water ecosystems of Pereiaslav», «Ecological aspect of the distribution of epiphytic lichens», «Bioindication studies of the Trubizh River within the boundaries of Pereiaslav», etc.

The scientists of the department of natural sciences and teaching methods of the university submitted applications for participation:

- in the competitive selection of scientific works financed by an external aid tool in the Framework Program of the European Union «Horizon» on the topic: «Rare plant species of the Middle Dnieper geobotanical district (horology, population status and protection)» (staff members of the Institute of Botany named after M. G. Kholodny National Academy of Sciences of Ukraine, Zelenogur University (Poland);
- in the EU program Erasmus+ 2021-2027, under the direction of Jean Monnet in the field of higher education (ERASMUS-JMO-2023-MODULE) «Modernization of the content of professional training of science teachers on the basis of education for sustainable development: EU experience for Ukrainian universities».

It is worth noting that the educational-scientific project of Hryhorii Skovoroda University in Pereiaslav «Modernization of the content of professional training of science teachers» is focused on:

- carrying out an analysis of the professional training of future teachers of natural sciences in European countries and outlining the ways of its distribution in national pedagogical education;
- generalization, systematization, approbation of research results in the system of higher education; development and implementation of the educational special course «Environmental education» in the work practice of Hryhorii Skovoroda University in Pereiaslav;
- development and implementation of the «Education for Sustainable Development» training program for practical teachers of natural sciences;
- distribution of the educational course «Environmental education» and the qualification improvement program «Education for sustainable development» in the educational environment of Ukraine;
- organization of the system of acquiring personal flexible skills among students by means of non-formal education (soft skills). Effective forms of environmental education at the university are:
- involvement in informational and educational activities of students of general secondary education during pedagogical practices;
- organization and holding of various environmental trainings, during which the participants of the educational process develop rational ways of solving existing environmental problems;
- organization of volunteer activities, namely: networking, quests to clean the area from pollution according to thematic directions;
- conducting ecological fairs;
- sorting of household waste, etc.

Professional training of future teachers of natural sciences to implement the strategy of sustainable development should be carried out through educational, practical, research, self-educational, and volunteer activities, which encourage participants in the educational process to:

- increase awareness of the main strategic guidelines of sustainable development;
- understand one's own mission, as well as the role of individual individuals and social groups in achieving sustainable development;
- acquire of a system of knowledge, mastering techniques, methods and technologies, strategies of professional activity in conditions of sustainable development of society;
- form an individual's ability for sustainable self-development.

So, in the modern world, under the influence of the phenomena of globalization, social and natural cataclysms, and military actions, the processes of forming the paradigm of education for sustainable development are emerging, taking into account the ecocentric type of environmental consciousness of student youth. Indicators of such consciousness are: orientation to ecological

expediency; harmonization of human-environment relations; a rational balance of pragmatic and consumerist attitudes of society towards the environment. The strategy of sustainable development orients humanity to respect the ecological values, the preservation of ecosystems, the introduction into practice of effective resource and nature-saving technologies, etc. The introduction of the European experience of environmental education into the system of professional training of teachers of natural sciences in Ukraine should lead to the formation of environmental consciousness among student youth, which will show signs of a high degree of awareness of global environmental threats (political, social, industrial, economic, military), a persistent desire to implement effective methods of a humane solution of them.

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