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## THE FORMATION OF ECOLOGICAL AND ECONOMIC COMPETENCES IN THE CONTEXT OF THE STABLE DEVELOPMENT OF THE CARPATHIAN REGION

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**Abstract.** The paper deals with the peculiarities of the formation of ecological and economic competences at modern school. The paper shows that ecological and economic education is continuous and uninterrupted psychological process which is directed towards the formation of knowledge, culture and consciousness of a person. Attention is paid to the problems of environmental and economic situation in the Carpathian region of Ukraine. Ecological and economic model of education can develop effectively only on the basis of humanistic orientation and innovation potential of the educational institution. The humanization provides increased attention to the individual as a whole, the promotion of its abilities, physical and moral qualities. Modern education aims to form environmentally and economically responsible person, that is ready for the conscious activity on the basis of the gained knowledge and formes behavioral norms and rules concerning the environment. Humanity has the ability to choose either the path of environmental and economic education, or the path of the global catastrophe and self-destruction. Civilized, cultured people are called to protect and multiply the good, by laws and authority to establish the highest spiritual values of the life in the society and public opinion. Only intelligence and environmental and economic culture, that is continuous educational training and educational activity, may generate culture of society, relevant to the permanent development, and transfer its relationships with the environment on the way of intelligent coexistence.

**Keywords:** competence, ecological and economic education, sustainable development.

The expanding of ecological and economic sphere of human impact to the planetary scale became the main reason of the loss of balance between natural life support systems and industrial, technological and demographic needs of urban society. This is due to the fact that in recent decades owing to the demographic outburst and growth of urban needs of each person, the total value of natural products, that consumes humanity, has grown tenfold, and in some cases hundredfold<sup>5</sup>.

Today it is clear that any technical and technological innovation requires additional energy, raw material, it causes the emergence of additional quantities of waste and pollutants, so it causes stronger pressure on nature. It is necessary to take gradually a new world outlook - the ecological and economic paradigm - the idea of permanent development - as a principle of the consumption of nature by the humanity. In these approaches it is necessary to displace accents in the development of science and technology progress from technological and economic directions to humanistic and ecological ones,

and natural resources should be viewed not only as means of development of productive forces, but also as a factor of the environment in which mankind lives.

Geoeconomic benefits of the Carpathian region are in its location at the crossroads of trans-European and Eurasian trade and economic, transportation and infrastructure, industrial and cooperative, raw material and energy and other flows. The issue of permanent development mechanisms and instruments of its implementation within the Carpathian region became the subject of investigations of M. Dolishniy, S. Dorohuntsov, V. Kravtsiv, T. Tkachenko, V. Fedorchenko, M. Hvesyk and other local scientists. However, the role of education and its impact on these processes is not enough studied, there are no conceptual views on the permanent development of the Ukrainian Carpathians.

The analysis of socio-economic issues and the formation of ecological and economic competences in school as the part of an effective implementation of the permanent development in the Carpathian region of Ukraine.

Statement of the main material of the investigation. It is decided to attribute Lviv, Ivano-Frankivsk, Transcarpathian and Chernivtsi regions to the Carpathian region, where the Ukrainian Carpathians are located. The Carpathian region covers the area of 56.6 ths. sq. km., that represents 9.3% of the territory of Ukraine, here lives about 6.4 million of people, that is 12.3% of the population of Ukraine.

The Ukrainian part of the Carpathians is not only one of the most picturesque parts of Ukraine, but also the most significant natural health and recreational object of the Eastern Europe, area of valuable forest arrays, which are a powerful water-regulating and air-cleaning system for the whole Europe. The climate of the Ukrainian Carpathians is temperate continental, warm, but its thermal regimes and moisture conditions vary widely upon height. The Carpathians are rich for mineral water, one third of the forest reserves of Ukraine is concentrated in the mountains, here grow over 2110 species of flowering plants, a large number of valuable trees and herbs.

The level of economic development of the Carpathian region is rated as average. For the value of the gross domestic product per capita, only Lviv region exceeds average Ukrainian index, and Transcarpathian region generally has the lowest index in Ukraine. Since a number of objective and subjective reasons, there appeared (and in recent years, deepened) trends to the socio-economic decline of the region: economic ties are unbalanced, unemployment is progressing, disparities in living standards in the mountains and plain acute, the demographic situation is close to the critical, the unique nature of the Carpathians degrades, the historical and cultural values of the region are desolated. Annually much of the workforce of the specified regions leave Ukraine searching for work (outside Ukraine work for different grades 4.0 - 5.5 million people).

In the Carpathian region the rate of degradation of the "life sphere" is much faster than the rate of the awareness of this extremely dangerous process by the population and authority. The region is characterized by multi-level system of industrial relations, its production capacities are oriented at hardware products. The dominant in the structure of manufacturing industries are energy-intensive woodworking and raw material extractive systems. The increase of the output in these industries was always accompanied by the creation of chemical and wood-chemical capacities, chronic lag of technologies from the world's standards, uncontrolled emergence and accumulation of various toxic wastes, anthropogenic impact on the environment of the region. Especially harmful for the environment of the Carpathian region is the barbarian attitude to the main natural wealth - forests. Scientifically unreasonable large deforestation of the last century led to the reduction of the forest areas, broke the age structure, reduced the natural wood increase, damaged the water-creating system, caused frequent natural disasters (floods, landslides, mudslides, wash-away of the fertile soil, fallen trees etc.). Gradually the Carpathian region turned from the "pearl of Ukraine" into environmentally average area of the anthropogenically polluted continent<sup>4</sup>.

Taking into consideration all above-mentioned, we can conclude that the population of the Carpathian region is now living in the conditions of socio-economic discomfort, there have accumulated a lot of environmental, economic and social problems, solution of which requires the efforts of both, the state and public. Decisive in solving existed contradictions between human activity

and nature must become all the methods and means by which it is possible to form ecological culture and environmental awareness of the population. It is possible only on the basis of deep philosophical, social, political, psychological and pedagogical understanding of the sense of the human being, social norms of the existence of civilization. It is necessary to form in every person a deep ecological world outlook, the understanding of the dominant role of the natural values over the artificially created material goods, the awareness of reasonable limits of their needs, the readiness to subordinate personal interests to the laws and abilities of the nature.

Under the term "**competence approach**" we understand the focus of the educational process on the formation and development of the key (basic, fundamental) and subject competencies (knowledge, skills, attitudes etc.), which pupils must have after graduation. The result of this process will be the formation of general competence of the person in various ideological issues, in her practical actions.

The traditional educational system focused its main efforts on the acquisition of knowledge and skills, that dogmatically absolutised knowledge and formed knowledge approach to studies. The main attention is focused on the knowledge itself, but what for is it necessary, remains out of focus. The competence approach displaces accents from the process of accumulation of established knowledge and skills to the sphere of formation and development of students' ability to act practically and apply creatively their knowledge and experience in different situations. Thus school creates a high readiness of the graduate for successful activity in real life. In such conceptual scheme teachers and students a priori focus on the personal-oriented and activity models of studying. It requires from teachers to shift the emphasis in their educational activity from the informational area to organizational and administrative one. In the first case the teacher played the role of the "repeater of knowledge", and in the second case he was the organizer of the educational activity. The model of student's behavior also changes - from passive learning, to research, active, independent and self-educational activity. The process of learning is filled with the developing function, that becomes an integral feature of learning. Such characteristic has to be formed in the process of learning and includes knowledge, skills, attitudes, experience and behavioral models of the individual.

It is believed that the conscious and careful attitude to the nature and its resources should be formed from childhood, in the family, school and it is possible only under condition of the active formation of ecological and economic consciousness and culture, accumulation of systematic knowledge in this area. Ecological and economic culture is a measure of the moral maturity of the person, its common sense in many actions, and being deeply rooted in the subconscious, it outwardly manifests as the presence or absence of common sense in certain actions of the individual or even the whole society. It is such a trend of human activity and thinking, from which significantly depend the normal functioning of modern civilization and its permanent development in the future<sup>6</sup>.

The Permanent Development Strategy provides that the productive forces, economic structure, specialization and location of output industries in the current conditions have to conform very close with the available natural resources, productive, reproductive and assimilative capacity of the environment. Moreover, the level and character of the usage of natural resources, especially land, water and mineral resources, the scale and direction of financial investment, the organization of technical, technological and organizational progress should be consistent not only with the current, but also with the perspective needs of the society<sup>1</sup>.

In such approaches the ecological and economic culture should be considered as the direction of human activity and thinking, from which the current conditions of the existence and the immediate future of the humanity depend. On the one hand, it serves as a theoretical discipline about the place of the person in the biosphere, and on the other hand, it is a set of specific actions, techniques and consequences of human interaction with the nature. In this context the level of ecological and economic culture of the individual and society as a whole determines the state of the environment and the inner world of each person. Thus the process of formation in every person the modern ecological and economic outlook, careful attitude towards nature, the understanding of the dominant role of the natural values over the artificially created material goods, the awareness of reasonable limits of their needs, lack of the psychology of consumer, the readiness to subordinate voluntarily personal interests

to the laws of the nature and interests of the society's development becomes particularly important. Only through a process of training and education, the humanity is able to produce necessary information, that will actually create the conditions for permanent environmental and economic development of the civilization. Ecological and economic training and education is a continuous psychological and pedagogical process intended to the purposeful formation in the person<sup>2</sup>:

- the knowledge of the scientific principles of the usage of nature;
- the essential beliefs and practical skills, specific orientation and active social position in the sphere of protection, conservation and multiplication of natural renewable and non-renewable resources;
- a staunch desire to stop changing environment recklessly and irresponsibly;
- the need of aesthetic perception of nature and the outlook, based on humanistic ideals.

The main objective of the ecological and economic education should become the formation of the new type of consciousness on the basis of which the "... humanization of nature and naturalization of man" will occur<sup>2</sup>. The new ecological awareness should logically include all previous types of consciousness (magic, religious, scientific), but not disown from them. It means, that educational institutions are called to educate youth in the spirit of love to the native land, deep knowledge of its historical heritage, the protection of the environment, scientifically-based usage of the natural resources (land, forest, water, minerals etc.).

Environmental education is not for the teacher of one subject, this work is multifaceted, continuous and developing, it is advisable to implement it in complex, involving primary school teachers, subject teachers and the staff of extracurricular institutions. The system of the pre-school education and training is called to create motivational basis of the future ecological and economic consciousness. The main objective of the ecological and economic education of the current educational system are<sup>3</sup>:

- mastering the scientific knowledge about the correlation and interplay of the nature, society and human activity;
- understanding of the multifaceted value of the nature for society as a whole and for each person in particular;
- formation of students' knowledge about a complete scientific picture of the world, the correlation and contradictions between nature and society;
- mastering the rules of proper behavior in the environment and in the society;
- development of the need to contact with nature;
- intensification of the scientifically-based activities, connected with environmental protection and improvement of the environment.

The strategy of ecological and economic education should be based on the modern principle of the outrunning of the science over the nature-converting human activity. Ecological and economic education should be continuous and should be implemented in pre-school, school, student and postgraduate periods. To achieve the greatest educative effect in the formation of environmental and economic competences, scientific and methodological foundations of education should be developed in the close co-operation of teachers, psychologists, sociologists, and should be based on the modern achievements of the psychological and pedagogical science and practice.

Ecological and economic model of education can develop effectively only on the basis of humanistic orientation and innovation potential of the educational institution. The humanization provides increased attention to the individual as a whole, the promotion of its abilities, physical and moral qualities. Modern education aims to form environmentally and economically responsible person, that is ready for the conscious activity on the basis of the gained knowledge and formes behavioral norms and rules concerning the environment. Humanity has the ability to choose either the path of environmental and economic education, or the path of the global catastrophe and self-destruction. Civilized, cultured people are called to protect and multiply the good, by laws and authority to establish the highest spiritual values of the life in the society and public opinion. Only intelligence and environmental and economic culture, that is continuous educational training and educational activity,

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