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DEVELOPMENT OF SCIENCE AS A CONDITION FOR SOLVING ENVIRONMENTAL PROBLEMS AND THE PREMISE FOR TRANSITION TO A SUSTAINABLE DEVELOPMENT WAY**РАЗВИТИЕ НАУКИ КАК УСЛОВИЕ РЕШЕНИЯ ЭКОЛОГИЧЕСКИХ ПРОБЛЕМ И ПРЕДПОСЫЛКА ПЕРЕХОДА НА ПУТЬ УСТОЙЧИВОГО РАЗВИТИЯ****Moskvina A.O. / Москвина А.О.***s.e.s, Ph.D., as.prof. / к.э.н., доц.*

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Annotation. *The article is devoted to the problems of environmental preservation for future generations, the reorientation of destructive human activity, which destroys humanity through environmental pollution, exhaustion of the bowels of the earth, etc., into constructive one - coevolution of society and nature, finding the levers and mechanisms that allow through the development of science and education to change the mind and worldview of a person in the direction of his ecologization and understanding of the problem of nature preservation, taking into account the need for the solution of global problems of mankind, that will change the ecological situation in the world for the better and will allow to move to a path of sustainable development as a condition for the survival of civilization.*

Keywords: *ecological crisis, ecologization scientific research, co-evolution, noosphere, ecological consciousness.*

Introduction.

Humanity subjugated nature, forcing it to serve its interests; but as a result, there were negative qualitative changes, characterized by a continuous increase in the anthropogenic load on the environment. Everything was under threat: water, air, soil, flora, fauna, human health and even the very existence of the biosphere, – which puts the problem of environmental protection at the forefront of the most urgent problems of humanity that must be solved in the first turn.

Main text.

Natural metabolic processes and the regenerating ability of the atmosphere and hydrosphere are no longer able to neutralize anthropogenic pressures and their harmful effects. There appeared a whole tangle of environmental problems.

An exponentially increasing waste stream containing heavy metals and other abiogenic substances breaks global cycles and creates the preconditions for genetic change. The process of unbalancing the system of regulation of the biosphere is developing. As a result, the balance of biocenoses is disturbed, the ability for self-purification and self-regulation is lost, the relationships that have developed during the long evolution are torn, and their degradation occurs. Not only microorganisms



change, but also the human population. The concept of pathogenicity has appeared along with the new diseases, the intensification of pathogen transmission and the emergence of new ways of infecting a person dramatically increase the epidemiological danger. There is a question about the survival of the mankind itself. Under these conditions, it is no longer possible to consider a human being and the environment separately from each other, but only in a single system: nature-society.

In 1992, the UN Conference on the environmental matters was held in Rio de Janeiro. It was noted that the state of the environment is getting worse, and its destruction processes are intensifying. The concept of sustainable development was proclaimed at the conference. This concept proclaimed the need for a harmonious combination of solving socio-economic problems and maintaining a satisfactory state of the environment, reducing economic disparity between developed and developing countries. So, sustainable development implies a balanced functioning of nature, society and economy. From that time to the present day, the problem of sustainable development has been widely discussed, but almost everything has been reduced to declarations.

V. I. Vernandsky developed the concept of a new sustainable state of society based on the noosphere concept (first introduced by Teilhard de Chardin and Le Roy). In the noosphere (or the sphere of the mind), as in the biosphere, there is a closed circulation of substances, everything is recycled, turns into a useful product and is used again. Thus a human will no longer live off the biosphere. He and his productive forces will become a part of the noosphere, will continuously exchange substances with the biosphere. There arises a directed and coordinated development of a man and the environment - coevolution, which is determined by the capabilities of human intellect, that is to take care and responsibility for the fate of the planet [2]. Neo-economics – an economy based on mind, an economy through which a transition to a noospheric civilization of self-maintenance of vital functions for the harmonious development of the natural environment is occurred, – is developing in this direction [1].

Nowadays, humankind opens up various ways: one leads to the noosphere, to an increase in the correlation of processes in nature and society, the other way, according to the scenario of S. U. Hawking, leads to self-destruction. The future will largely depend on the steps that are taken now. It is necessary to look for the ways out of the current situation with the forces and knowledge available. Now, when the development of civilization has reached a critical threshold, only the sphere of mind can indicate the ways out of the growing global difficulties.

In the conditions of disagreement of the processes in the biosphere, scientific and practical groundworks in microbiology, virology, and epidemiology are necessary. In the prediction of environmental changes, science should play a primary role. The real way out is possible only on the basis of scientific prediction, which allows to determine the occurrence of negative events and the best ways to counteracting. It is science that largely determines the chances of mankind salvation.

The degree of development of science has a direct impact on the implementation of the concept of sustainable development and the transition to the era of nooeconomy. The more educated, civilized people are, and the higher the level of



scientific development of society is, the more it is inclined to take environmental problems into account, the more likely it is taken into an objective understanding of environmental events, a vision of the consequences of changes in it, an assessment of its nature and characteristics. Rising the educational and scientific level is a priority task of the environmental policy, the main efforts of which should be aimed at the ecologization of scientific research and environmental education.

Ecologization of human consciousness - the way to overcome the ecological crisis, – is to reveal the ecological side of social existence, aimed at achieving an optimal state of the system of relations "nature-society", reviving value-moral principles, enlightening the direction of restructuring the anthropocentric public consciousness, where the perception of human exclusivity is firmly established in, into ecological one [3].

Today, environmental awareness should be directed not only at reducing the negative impact of society on nature, but at improving the state of the natural environment. The highest stage of the consciousness ecologization is the ecological culture, the idea of which is to treat the nature not only as a material, but as a spiritual value as well.

A man belongs to nature and is inside of it. This is the unity of man and the biosphere and the inevitability of its evolutionary transformation into the sphere of mind – the noosphere of V. I. Vernadsky, – the sphere within which the intelligent human activity becomes the determining factor of development when the main role of the development is transferred from the natural flow of natural processes and anthropogenic influence on nature to the harmonious development of nature and society [2].

Inferences and conclusions.

Thus, the use of scientific approaches in solving environmental problems contributes to the human awareness of current events in the natural and social environment. Scientific nature of human activity is the most important component of his actions, worldview and determination of the position leading to the harmonization of relations in the system: “nature-human-society”. Harmonized science will help create a harmonious system of relations between a man and nature and ensure the harmonious development of a man himself [4].

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Аннотация. *Статья посвящена проблемам сохранения окружающей среды для будущих поколений, переориентации деструктивной деятельности человека, которая уничтожает человечество посредством загрязнения окружающей среды, исчерпания недр и др., в созидательную – коэволюции общества и природы, нахождению тех рычагов и механизмов, которые позволят посредством развития науки и образования изменить сознание и мировоззрение человека в направлении его экологизации и понимания проблемы сохранения природы с учетом необходимости решения насущных глобальных проблем человечества, что изменит экологическую обстановку в мире к лучшему и позволит перейти на путь устойчивого развития как условие выживания цивилизации.*

Ключевые слова: *экологический кризис, экологизация научных исследований, коэволюция, ноосфера, экологическое сознание.*

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