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ENVIRONMENTAL BELIEF OF STUDENTS IN HIGHER TECHNICAL EDUCATIONAL INSTITUTIONS – THE PATH TO HARMONIOUS RELATIONSHIP BETWEEN TECHNOGENIC SOCIETY AND NATURE

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Ukraine has the opportunity to use international experience and to make important steps toward developing basic principles of sustainable development. The harmonious coexistence of economy, ecology and social sphere, which is the basis of the concept of sustainable development, needs a system changes not only in government policy, but also in higher education today.

The rapid development of industry, especially in urban developed regions, which are, in particular, the city Kyiv and Kyiv region has led to significant environmental degradation: air, surface and underground water, soil pollution by wastes of industrial and domestic origin [1].

Recently, it became clear that sustainable development of civilization in general, preservation of biological diversity on Earth, health, welfare and the very human existence is largely dependent on the environment condition. Thus, the introduction of new effective and most environmentally friendly technologies of nature treatment – Ecobiotechnologies – is an important task today.

The experience of developed countries convincingly demonstrates that the successful solution of many environmental problems through the use of modern biotechnology is only possible if a sufficient number of carriers of current knowledge are available – specialists in biotechnology, which have a theory, methodology and practical experience in creating and implementing modern Ecobiotechnologies [2].

Taken into account that soon there will be an urgent need for qualified personnel that able to develop advanced conceptual foundations and methodological approaches to address problems of environmental risks of industrial enterprises in Ukraine there is a need to review the current state of ecological training at higher technical education.

Application of modern biological technologies and methods that solve problems of environmental protection in Ecobiotechnologies is particularly relevant taking into account modern anthropogenic burden on the environment and accumulation of environmental problems that can not be solved otherwise.

Given the global trends, required policy priorities of Ukraine soon will be the following searching of the: ways to improve existing environmental technologies, including biotechnology, radical revision of environmental legislation and standards of economic activity, the technical modernization of industrial facilities to ensure their ecological safety; establishment of Biomonitoring and use of bioindicators of environmental objects.

The need for specialists in environmental biotechnology due to the fact that solving environmental problems is impossible without the use of new Ecobiotechnologies for environment pollution diagnostic, wastewater treatment, disposal of hazardous gas emissions, use of advanced solid and liquid industrial wastes, increase efficiency of methods of biological restoration of contaminated soils replace of various agrochemicals with bioprepavatious and so on. Ecobiotechnologies of biogas and hydrogen production from organic wastes, microbiological degradation of xenobiotics, the use of bioindicators and biotesting in the systems of ecological monitoring are important fields of Ecobiotechnology development.

Specialists in specified area prepare several higher technical educational institutions in Kyiv only. In particular, the National University of Life and Environmental Sciences of Ukraine prepares masters in Ecobiotechnology. Key area for masters in Ecobiotechnology in University of rational use of natural resources is agrosphere. The studding of masters in Ecobiotechnology at the

National Technical University of Ukraine "KPI" is aimed to provide qualified Ecobiotechnologies for the chemical, machine-engineering and other industries, for which specialists are trained in National Technical University "KPI".

National Aviation University trains masters in Ecobiotechnology which specialize in prevention of biocorrosion, biodamage and biofilm formation on the objects of aviation infrastructure.

The problem of ecological production of food, pharmaceutical and biotechnology products, obtaining alternative sources of energy on the basis of these industrial wastes remained unreached by staff with the highest level of education fill now. Guided by the desire to solve this problem the National University of Food Technologies (NUFT) had received a license for training of the specialists in "Environmental biotechnology and bioenergy."

Ecobiotechnology and bioenergetics – is a choice that has a global perspective for the successful development of civilization. Overcoming the current and likely prevent the environmental crisis are impossible without the use of new Ecobiotechnologies for wastewater treatment, disposal of contaminated gas emissions, use of safe utilization methods for solid and liquid industrial wastes improve of methods of biological restoration of contaminated soils application of bioahrotehnichnical measures to restore impaired environmental sustainability [3].

Specialist training in environmental biotechnology and bioenergy is carried out by highly qualified and experienced lecturers at the Department of Biotechnology and Microbiology. Among them are two doctors of Biological Sciences, Doctor of Pharmacy, fifteen candidates of technical sciences and four candidates of biological sciences, including the Academician of International Academy of Technological Sciences. Doctors of sciences, the leading specialists of Scientific Research Institutes, are also involved to participate in the learning process.

Lecturers of the department of biotechnology and microbiology are experienced specialists in the field of environmental biotechnology and bioenergy. In recent years, they worked out and defended several theses devoted to

ecobiotechnological topics, namely: development of method of obtaining neustonic biopreparation by flotation, wastewater treatment biotechnology of food industry by the application of iron compounds, technology of surfactants synthesis by oiloxidizing bacteria. Thus, formation of ecological outlook of students is in the reliable hands of professional lecturers.

So, training of the specialists in "Environmental biotechnology and bioenergy" at the National University of Food Technologies is a necessary and topical implementation of the idea of harmonization of relations between man and the biosphere and the development of new approaches for restoring the natural environment through modern Ecobiotechnologies as a specific direction application of biotechnology to solve ecological problems.

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The article is devoted to the consideration of ways of the topical problems decision which get in way of harmonization of relations between technogenic society and the nature. It also devoted to the analysis of state of training of specialists on ecological orientation in the higher technical educational institutions.

Keywords: technogenic society, ecologization of manufactures, ecobiotechnology, bioenergetic, training of specialists.