

Classification Of Modern Ecological Problems and Principles of Forming Ecological Competence in Students

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Abstract

Today, the demand for information about environmental changes that are causing a lot of discussion in our society, which are happening around us, as well as the whole world, is increasing every day. This article will show with scientific reviews and specific figures the impact of the human factor on modern environmental problems and the solution of problems, a brief analysis of the environmental problems observed in the world stage and Uzbekistan at present.

Keywords: Nitric oxide, chlorformmethanes, pesticides, agro-industrial, ozonosphere, ultraviolet rays, dimming.

Introduction

An ecological problem is a reaction of nature to a person in connection with the impact of man on nature, that is, processes of economic importance in society, related to natural phenomena (climate change, mass migration or extermination of animals, damage to the world of self, etc.) is understood as any event. Natural, natural anthropogenic phenomena observed around the world are considered universal problems. Here are some examples of such problems.

"The phenomenon of atmospheric warming". In recent years, it has become known that the amount of SO₂ in the atmosphere is increasing. It has increased by 0.5-1.0 C in 100 years. Climate change on a large scale is associated with atmospheric industrial emissions and gases emitted by motor vehicles. Global warming of the Earth's surface (atmospheric warming) is due to the increase of SO₂ in the air, deforestation, burning of fuels such as coal and gasoline, and accumulation of SO₂ in the atmosphere. If the situation does not change in the future, the temperature of the earth's surface may increase by 1.5-4.5 C by the 21st century.

As a result:

1. Climate change, especially increasing desertification.
2. Changes in precipitation.
3. Shifting of geographical zones.
4. Sea and ocean level rise.
5. Melting and reduction of glaciers and other phenomena are observed.



Depletion of the ozone layer. Ozonosphere is an important component of the atmosphere, it protects the climate and all living organisms on the earth's surface from radiation. The most important feature of ozone in the atmosphere is its constant formation and decay. Ozone is formed under the influence of sunlight in the presence of oxygen, nitrogen oxides and other gases. Ozone protects living organisms on earth by absorbing strong ultraviolet rays. Exposure to ultraviolet rays causes skin burns in humans. Today, it was found that skin cancer is caused by these rays. Due to the widespread use of chlorofluoromethanes (freons) and nitrogen fertilizers, aviation gases, detonation of atomic bombs, a large amount of ozone accumulates in the atmosphere. Therefore, it is planned to reduce the use of freon used in refrigerators in household life and gradually stop production.

Fresh water problem. On land, fresh water and its importance in the biosphere are much greater. The amount of fresh water in the hydrosphere is very small (2-2.5%). Fresh water reserves are mainly polar ice caps. With the development of society, the population's demand for fresh water is increasing. In our century, the use of fresh water has increased 7 times. 3-3.5 thousand km² of water is consumed per year. At the end of our century, this indicator will probably increase 1.5-2 times.

The problem of pesticide use. This group of toxic chemicals is used in the fight against weeds, harmful insects and other microorganisms that cause diseases in animals and humans. Spraying of pesticides in agriculture and forestry with the help of aviation leads to environmental pollution on a large scale. Pesticides are dispersed in the atmosphere, over long distances, and accumulate in the oceans of the world after passing through fields, rivers, and lakes through water. The most dangerous part is that they join the ecological food chain and pass from soil and water to plants, then to animals and birds, and finally to the human body with food and water. Pesticides are harmful and harmful at every point. Pesticides are harmful and serious to living nature and humans, and at the same time, they are stable substances in relation to external environmental factors.

Environmental problems in Uzbekistan. Today, Uzbekistan is a large industrial and agrarian region, and in the future, it is planned to further develop the machine-building, energy, chemical, food industry, transport complex facing the world. However, the development of productive forces has a certain negative impact on the state of social ecotourism in the republic. The modern ecological and nature protection problems that are urgent in the republic are as follows:

1. Problems of nature protection in the areas where large territorial-industrial complexes are located.
2. The problems of the island and the coast of the island, protection of water resources and their optimal use.
3. Environmental problems in the agro-industrial complex.
4. Pollution of natural waters with industrial waste, pesticides and mineral fertilizers.
5. Problems of protection and restoration of flora and fauna, expanding the network of nature reserves and national parks.

Prevention of modern environmental problems. It is known that in the development of any country and improving the lifestyle of the population, it is important to observe three principles:



1. Economic growth
2. Social protection
3. Environmental safety

We will now focus on the third principle. A special place is given to the issue of ecological security of Uzbekistan. In general, the environmental situation in Uzbekistan, ecological security, elimination of the consequences of the ecological tragedy of the Island and the entire island, which imitates this security and has now become a global problem, and the issues of rational use of transboundary river water have not been paid attention to yesterday or today. Ecological situations have always been in the center of attention.

It should be noted that at the origin of any modern problem, the influence of the human factor is felt. Before these problems become more widespread, we urge everyone to reduce their impact and take care of nature. After all, we can get a hundred times more from nature than we are in harmony with it!

Today, man's attitude towards the environment has reached a state of ecological crisis, which cannot be recovered only by economic, technical and administrative measures. The scientific and technical progress of society, which considers man as the ruler over nature and the manager of nature, created the imagination of his unlimited power. Negative processes occurring in nature began to affect the quality of human life. The pedagogic rather than technological method of solving environmental problems has also become clear, which consists in the formation of an ecologically educated young generation capable of managing a sustainable nature.

It is a vital need for a teacher who has high ecological competence, professional mobility, independence, constantly improves his professional skills and abilities, and has the ability to improve his professional and creative growth. This gives the society the task of educating a student - a future teacher, who can take responsibility for his own knowledge and become a subject of improving his qualifications. One of the ways to solve this problem is to form the professional environmental competence of the future teacher.

The current university practice and the effectiveness of ecological pedagogical education hinder the improvement of professional environmental competence, which is expressed in the main emphasis on the component of knowledge (acquiring knowledge and information about environmental disasters) - "competence" based on

From the point of view of the competence-based approach, the future teacher should not only have broad and deep knowledge, skills and competences in various fields of ecology, psychology and pedagogy, he would like to improve his knowledge and apply them in the educational process. It helps students not only to form a system of ideas about the world around them, the relations in the human-nature system, to teach the technologies of rational management of the environment, but also to develop rational and ecological aspirations and skills, to use natural resources in the field of using nature. should explain safe use [3]. This idea about the nature of the competency-based approach in the environmental training of the future teacher is complicated by a number of contradictions:



- Between society's need for environmentally sound teachers who are capable of effective environmental education activities and the sufficient effectiveness of forming an ecologically sound personality of the future teacher.;
- Between the original conceptual scheme of the ecological-humanitarian educational paradigm and its full implementation in the field of designing technologies for the formation of ecologically sound personality of the future teacher;
- between the distribution of the new socio-ecological function of the teacher and the lack of a mechanism for correcting ecological pedagogical activity in terms of a competence-based approach to the system of career orientation and training of future specialists in higher education.

The identified contradiction between the need to form environmental skills of future teachers and the lack of professional environmental skills development is focused on the problem of finding ways to improve the effectiveness of environmental training of future teachers. One of the possible methods of scientific research is to study the structure of the environmental competence of the future teacher, to develop its conceptual and prognostic model, and to search for the mechanisms of its development in the future specialist. In recent years, a number of studies have been conducted on various aspects of the problem of the formation of a specialist's personality and his professional training.

At the same time, the analysis of scientific literature showed that, despite the existence of a number of studies devoted to the formation of professional competence of future teachers, it is related to the development of a unique model of the formation of environmental competence of future teachers. there are problems.

The model of formation of environmental competence of future teachers should meet the purpose of their pedagogical education. Analysis of existing scientific concepts of teacher training allows us to comment on orientation:

- a description of the knowledge and skills that a graduate of a higher educational institution should acquire;
- abilities and skills (constructive, organizational, communicative, informational, educational, organizational, mobilization, research, self-improvement);
- taking into account the modern requirements of the society and the individual, describing the characteristics and characteristics of the person representing his moral, ideological and civil positions;
- requirements for the qualifications and skills of a specialist who must organize a system necessary and sufficient to organize a holistic process of forming a student's personality.

The scientific approaches established in the development of the model of teacher training, striving for the integrity and consistency of the review of this model, do not pay attention to the aspect of developing the individuality of the future teacher as the most important goal of the humanistic concept of modern education.

Therefore, a multi-component model consisting of professional activity structures, personal qualities and individual characteristics was used as a basis for building the structure of professional competence of a future teacher.



Personality development is understood as the development of complex areas: intellectual, motivational, emotional, voluntary, thematic, existential and self-regulation; At the same time, education is considered as a process of purposeful influence on the development of a person, his attitudes, characteristics, qualities, views, beliefs, behavior based on the interaction of teachers and students in various activities. .

Competency approach allows to identify important professional characteristics and qualities of a teacher: mental neoplasms together with a system of personal qualities that help to form the environmental skills of a future teacher. These include:

- professional knowledge, skills, qualifications combined with techniques and technologies of professional activity; important professional qualities; ecological and pedagogical thinking (intellectual sphere);
- needs for professional work; value directions in professional activity, motivation for environmental education and practical activity (motivational field);
- conscious ecological education is a series of control of the feelings of creating a comfortable mood of the entire pedagogical process (emotional sphere);
- goals, activity tasks and their conscious implementation; voluntary regulation; ethical and voluntary aspirations in the implementation of environmental education and practical activities (voluntary sector);
- mastering ecological-pedagogical strategies and technologies of professional activity, professional behavior that meets pedagogical requirements and ecological standards (subject-practical field);
- determination of success criteria; get information about the results; decision on correction; the legality of choosing environmental education and practical activities and its regulation (the sphere of self-regulation);
- professional pedagogical position; existence of a positive concept of "teacher-ecology" (existential sphere), a system of relations closely related to the content of professional activity, professional identity.
- We consider the environmental competence of the teacher as a specific type of professional competence, as one of the components that make up a part of the general competence of the teacher. The teacher's ecological competence develops interrelatedly with the teacher's ecological, communicative, psychological, pedagogical, social and methodological competences and represents their synthesis and inseparable unity.

We present the reference content indicators of the ecological component of personal and personal qualities of students, which form the ecological core of the person - the basis of the formation of environmental competences of future teachers.

It is known that the intellectual sphere consists of the qualities of the mind, cognitive processes, mental operations, cognitive abilities, educational abilities, knowledge and methods of action. Indicators of ecological competence in the intellectual sphere are the following: the basic values, laws of the environment, concepts and ideas about the place of man in the natural world, the duty to protect and preserve nature, environmental protection not only for himself, but for all living beings. responsibility, developed cognitive abilities, flexibility of the mind (humanity, moderation, understanding). Value-semantic derivations serve as a basis for

ecological and moral assessment, including the ecological significance of social natural phenomena, instructions for behavior and relations in the "society-nature" system. Thanks to them, the behavior and activity of a person is regulated and organized. Qualities such as intelligence and flexibility of mind are very important for solving the problems of sustainable development in the "society-nature" system, because they are self-expression and self-disclosure, the ability to take environmental responsibility and contributes to the desire.

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