

# Ecological Culture Development of Independent Learning, Creativity, Integrative Technology and Logical Thinking

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## Abstract

As all sciences feel the need for reforms in the conditions of the market economy, the development of environmental sciences, both practical and together with other sciences, has become the demand of the times. One of the main tasks of the science of ecology and nature protection is aimed at explaining to the student the causes and consequences of the natural and ecological changes taking place around him and in the world on a scientific basis.

**Keywords:** Ecological Education, Ecological Education, Ecological Culture, Ecological Spirituality, Ecological Problems, Spiritual-ecological Values, National Ecological Values, Scholars, Ecological Manifesto.

## INTRODUCTION

For a long time, it was not recognized that the economy is provided with natural resources, depending on nature or environmental laws and regulations. Over the years, experts began to justify the fact that the development of production depends on a single nature, in particular, ecological laws. Therefore, it is true that the main goal of the modernization of the country is the greening of the economy, in general, all its sectors. In most cases, this is closely related to the level of ecological education and ecological culture in the country. A lot of work has been done in this regard in our country and is being improved.

## THE MAIN RESULTS AND FINDINGS

In the fourth article of the Law of the Republic of Uzbekistan "On Nature Protection" (1992) "... compulsory study of ecology in all types of educational institutions;... scientifically based harmonization of ecological, economic and social interests of the society" is emphasized. The program of representatives of the environmental movement of Uzbekistan within the legislative chamber of the Oliy Majlis is also intended to increase the environmental knowledge of the population:

- Formation and implementation of an educational program for continuous environmental education and sustainable development.
- Creation of an effective system of increasing the qualifications of experts in the field of ecology, the environmental education of managers and employees of various branches of production, economy and management, judicial and law enforcement organizations.

The years 2005-2014 were designated by the UN as the decade of transition to education for sustainable development. A new Concept of the Republic of Uzbekistan on BRT has not yet been developed in the republic. "Information on the development of ecological education and educational system - analytical review" has not been prepared.

In schools, colleges and academic lyceums of our republic, "Ecology" is not included in their curricula as a compulsory subject. Therefore, in the system of school, secondary special education (college, lyceum), in all areas of higher education institutions, in the centers of training and retraining of specialists and managers, such subjects as "Ecology", "Nature protection" are deeply studied. establishment and improvement of education should be considered as a social order of the time. In addition, "biologist-ecologist", "geographer-ecologist", "chemist-ecologist", "urban planner-ecologist", "engineer-ecologist", "agronomist-

ecologist", "economist-ecologist" in a number of relevant higher educational institutions., the preparation of specialists in such specialties as "industrialist - environmentalist", "builder - environmentalist" is the same term.

Therefore, they have the opportunity to familiarize with the stabilization of ecological situations in the world, especially in Uzbekistan. They have the opportunity to explain to students and listeners the reasons for the impoverishment of the nature and natural resources of Uzbekistan, the causes of pollution of the natural environment, its negative consequences, the measures aimed at optimizing the ecological situation, the importance of laws and decisions issued by the government in the field, and the nature of regulatory documents..

It should be noted that these subjects should be taught by specialists - pedagogues with a basic knowledge of geography. Because environmental problems in the area are mainly caused by the violation of natural geographical laws in that place. Here, the wise thoughts of the great scientist I.Q. Nazarov are true: "Geography is the philosophy of regions, geographer is the ecologist of regions."

Let's pay attention to one more thing. In today's era of globalization, most students know very little about the political and economic changes taking place on the world political and economic map, the countries located in it, including the place of Uzbekistan in the world political map and economy. Have knowledge. When information is given in the press, on radio and television about the nature, population, economy of a country or various geographical objects and laws, principles, most students do not have enough knowledge about where they are located, on which continent, in which country. The sad thing is that

In addition, in all specialties of the secondary and higher education systems and in the centers of retraining of personnel of all fields, the teaching of the science of "Geography of Uzbekistan" along with the science of "Ecology" ensures systematicity, logic, and harmony. As a result, you can achieve the desired effect. If necessary, it should be considered the demand of the time to include the subject "Uzbekistan's geography" in the tests for the transition from entrant to student at all higher educational institutions.

Geographical knowledge is very necessary for a deeper understanding of the specific current stage of development of our country and beyond, and for a clearer picture of the world. Since the homeland begins at the threshold, it is not without benefit that its history and geography are looked at from the same point of view.

As the famous French geographer and historian Professor Jacques-Élysée Recloux (1930-1905) said: "History is the geography of the past, geography is the history of today."

"Comprehensive study of the history and culture, geography, economy, and ancient customs of the Motherland is of urgent importance. It is almost twenty years since the President of the Republic of Uzbekistan Islam Karimov stated that the teaching of these sciences and knowledge in educational systems from kindergartens to higher educational institutions should be considered as an important political task. Will be Unfortunately, the subject of geography has not yet achieved sufficient prestige in general education, secondary special education and higher education.

Proper ecology has become a macroecological science that was once separated from biology, but now it is developing independently on a very large scale. It includes several independent departments and scientific directions.

Ecological consciousness is the basis of ecological education, and it is manifested in preserving nature, treating it consciously, using resources sparingly, preventing unpleasant natural phenomena, and most importantly, always keeping the environment clean.

Ecological education, like ecological culture, is formed at the link: "family - kindergarten - school - secondary special educational institution (or higher educational institution) - enterprise - neighborhood". Of course, this sequence is conditional, but the role of the family in the formation of ecological education is incomparable.

Bringing up a child in the family to love nature, to respect it, in the future will motivate the child to be soft-spoken, open-hearted, able to feel beauty, take care of everything - to endure, patience, politeness.. A boy or a girl who takes care of a flower in a pot at home by watering it at the right time will never break the king of the tree growing outside, the boy who is infatuated with the bird in the cage or the fish in the aquarium, who feeds it, will throw a stone at the bird sitting in the tree tomorrow. At this point, the honored writer of our nation, O'tkir Hashimov, said: "A child who throws a stone at a sparrow when he is young can shoot a man when he grows up. It is enough to remember the inscriptions "There is one step between recklessness and crime". Or it is not for nothing that the saying "a child who destroys a bird's nest when he is young will inevitably destroy any family when he becomes an adult". It is unlikely that a person (child) who does not respect nature and does not feel its beauty will become a good artist in the future: artist, musician, poet or writer.

Improving and increasing the effectiveness of ecological education: school scientific circles, "Youth Union of Uzbekistan", "Ekosan" international fund, "Youth wing" of Eco-movement, neighborhood citizens' meeting and other state, non-governmental non-profit organizations, public information the support of such as means is very necessary.

Therefore, the relationship between man and nature is not only material, but also spiritually valuable. Russian scientists V.I. Danilov - Danil'yan and others. (2000) noted: "Man should think about self-management, not about managing evolution, he himself follows the laws of Nature. Man must understand his role in the biosphere as a species, which, like all other creatures, must obey the laws of development of the biosphere.

Ecology and spirituality It is desirable to combine the traditional economic practices of the Uzbek people with the use of ecologically adapted and balanced nature and its protection with universal values. Spirituality and ecology develop harmoniously, without denying each other. At this point, the role of spirituality in environmental protection is incomparable. The national ecological heritage indicates that a unique living environment has been formed in the life of our people for thousands of years. That is, the way of life of our people includes customs such as protecting their land, living in cooperation with nature, and using nature wisely. Over the centuries, the relationship to nature, land, and water has been reflected in spiritual and ecological values and is the basis of ecological culture. In a word, "ecology cannot be separated from spirituality" in the way of life of our people. In other words, where spirituality is high, attention to ecology and natural environment is high.

As the President of the Republic of Uzbekistan Islam Karimov noted: "It is necessary to creatively study universal values and apply them to our time. At the same time, it is necessary to preserve and improve our national identity, our traditions that have passed the test of centuries, and our life principles such as always living with faith." Because - "Living environment, ecology of nature and spirituality are inseparable from each other."

The purely national ecological values are the oral or written, scientific or artistic views, opinions, teachings on ecology created by our people from the earliest times until now (for example, "don't spit in the water", "hit the ground", "don't hurt animals" etc.), including all interpretations that serve ecological propaganda in works of art.

Our people have created hundreds of proverbs about nature and its preservation. In particular, there are 437 proverbs related to water. People have created so many proverbs about water, it means that water has been one of the main symbols in the Uzbek worldview and way of thinking since ancient times ("Drink water, don't pollute the spring", "A drop of water is a drop of water" etc.).

When talking about Islamic ecological values, first of all, we can cite the verses of the Holy Quran and the admonitions given in the Hadith Sharifs, the teachings of our scholars who lived and created in the Islamic world.

Our scholars note that 700 of the 6236 verses of the Holy Qur'an are devoted to issues between man and nature. It is also stated in this source that "everything in the world is measured".

In our hadiths, our Prophet said: "When you have a seedling in your hand with the intention of making bread, plant it if you can, even if it is clear that it will end accidentally." "Condemn the poor", "Eat, drink, give alms, but don't be extravagant and proud", "God is beautiful, he loves beauty" and gave advice to mankind. Many such hadiths can be cited.

Imam Bukhari, Imam al-Tirmizi, Bahauddin Naqshband, Khoja Ahmed Yassavi, Al-Khorazmi, Abu Nasr Farabi, Al-Beruni, Ibn Sina, Amir Timur, Mirza Ulughbek, Zahiruddin Muhammad Babur and many other great ancestors of our national culture who made a great contribution to development, who became the national pride of our people. They spoke valuable thoughts about nature and its balance, flora and fauna, and respect for nature at a time when the science of ecology was not yet born.

According to the testimony of historian Sharofiddin Ali Yazdi, Amir Temur "didn't want to waste even an inch of land suitable for development." His words, "If I took a brick from somewhere, I put ten bricks in its place, if I cut down a tree, I planted ten saplings in its place" are proof of our opinion. It is known from history that Amir Temur carried out improvement works and built irrigation facilities not only in Turkestan, but also in the cities and villages of Movarounnahr and Khurasan, and even in distant lands such as southern Azerbaijan and Kabul.

It was mentioned above that Zahiriddin Muhammad Babur was also a tourist and a naturalist. His ecological culture and values were so high that he respected people who knew the country, valued them and always consulted with them. "However, before going on a trip, people who knew the land and water were invited and inquired about the surroundings and directions," the author writes in "Boburnoma". Babur built a bird's nest on top of his tent during a long journey. It is true that the bird left a flock in the tent to prepare to fly away without destroying the nest. Here is the ecological culture of Babur, here is the ecological spirituality of the great king.

So, the Uzbek people have a rich spiritual and ecological heritage, and in this heritage, the efforts, traditions and customs aimed at preserving and protecting their space, land, living environment Great importance has been attached to the preservation and enrichment of this heritage reflected in the education of generations.

Ecological Manifesto (according to N.F. Reimers) Nature. For thousands of years, we have fought against it, subjugated it, changed it, brutally destroyed it.

But nature does not need our protection and protection, nature's protection and patronage is necessary for us: its clean air to breathe, crystal clear water to drink, nature itself to live. Nature has always been and will be stronger than man, because nature is the creator of man. Man lives only for a moment in the life of nature. Nature is eternal and infinite.

The biosphere is seriously ill. His illness was caused by human intervention in the life of the biosphere. Cruel, thoughtless technology has crushed, crumpled, broken nature, it has injured and changed the biosphere, and it has put pressure on humanity and polluted the Earth.

This road is over. The age of man's mindless exploitation of nature is coming to an end. Nature requires self-reproduction. Deep knowledge and rational caution are needed in dealing with and communicating with planet Earth. They are symbols of ecology.

Let's unite under the sign of ecological humanism (humanitarian) wisdom!

We say NO to the following and oppose them:

- To any wars.
- Any actions and battles against nature.
- To any illiterates in the use of nature, technocratism and voluntarism (the philosophy of rejecting the objective laws of development).
- To say eight without counting in demography.
- To technocratic gigantism, which will also lead to the beginning of the end of time.
- To all conjunctures (temporary) that do not provide real economic, social and ecological benefit (profit) in the perspective of centuries and only in the complex of these benefits and not otherwise.
- All situations that threaten the Earth's biosphere, are dangerous for people and every person.

We say YES to the following and support them:

- To peace and tranquility.
  - The foundation and conditions of human life - love and respect for nature.
  - To protect and preserve this type of biosphere, where intelligent man appeared and developed.
  - To preserve living species and their habitat at the highest level.
  - Resource-saving, cost-effective and low-waste technologies.
- "Closed" production processes.
  - To the new biological directions of agricultural development.
  - To factories without smoke, factories without toxic effluents, cars without poisonous gasses that repel the breath.
- To peace.
  - Reasonable demographic strategy.
  - To ecological culture.

A new era is approaching and beginning. A global revolution is on the horizon - a world ecological revolution. His goals are the survival of the planet Earth. A green light for all owners of living resources.

One of the criteria of spirituality is the establishment of an educational system and the formation of a competent generation in it for sustainable development. A perfect generation consists of raising a well-educated, conscious and highly cultured person, including ecological knowledge and culture.

At the international summit held in Johannesburg in 2002, it was recognized that "one of the main factors of the sustainable development of the entire human society on earth, in particular, the countries, is the protection of the environment and the extremely efficient use of natural resources." That is why finding solutions to environmental problems has become an urgent issue in the internal and external management functions of all countries. Environmental problems, unlike other human problems, do not obey administrative-territorial boundaries and are distinguished by their solution within regional and global ecological systems. The UN Decade of Sustainable Development Education (2005-2014), Resolution No. 212 of the Cabinet of Ministers of the Republic of Uzbekistan, Order No. 315 of the Ministry of Higher and Secondary Special Education on the development of environmental education, training, retraining and upgrading of environmental personnel in our country further improvement has become the national security policy of our country.

In the conditions of globalization, environmental conflicts between man and environment, nature and society are deepening. Because the biotic circulation, which is actually closed due to pollution of the environment with waste, remains open. Species of living beings and whole ecosystems are disappearing, the process of desertification is intensifying, climate change, degradation of plant community is observed. Environmental stability and economic development in society require compliance with laws. Environmental pollution, radiation, and noise factors affect human health. In this, the role of the individual is incomparable. Because the anthropogenic pressure on the natural environment is considered one of the main environmental factors. That's why it has become a priority to improve the spirituality of society and the individual, to create a highly spiritual and ecological culture.

Based on the relevance of Mazu, research is carried out in the following stages:

It is ensured that the criteria of environmental knowledge and culture are not declarative indicators, but criteria that can become a daily lifestyle. The following principles, i.e. guiding principles, are followed in the development of environmental knowledge and culture criteria applied to the national education system:

- Reveal the essence of the educational process.
- Show the general and private qualities of a highly moral person.
- Determining the goals and objectives of the project.
- To reveal the principles, methods and methodology of education and upbringing, ways of classification and systematization.

- Elucidation of theoretical aspects of modern pedagogical technologies and the mechanism of their application in these areas.
- Justification of regionalism in this education and training.
- Hierarchical ranking of environmental knowledge and culture in the continuous education system.
- Assessment of the future perspectives of environmental knowledge and culture in the national education system and development of related scenarios.
- Collection of educational-methodical complexes, classification, etc.

In the mechanism of applying the new model of environmental education and training to the educational process:

- Small working groups consisting of specialists will be formed.
- Educational institutions at all stages of education, i.e. pilot kindergarten, school, university, institute, centers are selected.
- Environmental knowledge and skills are tested in selected institutions.
- They are discussed in educational and methodical councils.
- Retest-experimental works are carried out.
- Reviews and sociological surveys are conducted.
- Discussed in coordinating councils.
- Criteria of optimal environmental knowledge and culture are determined by educational stages.
- Proposals and recommendations are developed, etc.

The scheme of educational methodological complexes for educational stages is created on the basis of proposals and recommendations given by small working groups:

- Collected data on each educational stage is analyzed.
- An education and upbringing scheme is created for each educational stage.
- Created schemes undergo reviews;
- Schemes are discussed in educational-methodical and coordinating councils.
- Additions and changes are made to schemes.
- The sum of educational complexes and their ratio for each educational stage are determined in the schemes.

Model training programs and work plans are developed on the basis of the scheme of approved educational and methodological complexes. The program and work plans are implemented on the basis of uniform criteria and form, and compliance with general educational rules is ensured.

Requirements for the creation of individual modern educational-methodical complexes:

- Groups of authors or an individual author are defined for.
- It is controlled that the complexes are implemented based on the scientific basis, program and work plans previously created by the project.
- Created educational-methodological complexes are reviewed by impartial experts.
- They are discussed in educational and methodical councils and then included in the publication plan.
- It is ensured that the size, number, size, shape, appearance, content and essence of the complexes meet the requirements specified in the program and work plan, etc.

## CONCLUSION

Developed and created educational-methodological complexes are applied to the system of the model of a well-rounded person with high spirituality. The block of environmental knowledge and culture is reviewed by common personality criteria, and it is ensured that it is applied to the educational stages at the same time.

In order to widely apply the results of the developed project to the field of education, the process of improving the qualifications and retraining of pedagogues, educators and managers working on this issue will be launched.

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