

# Development issues of environmental culture in young people in globalization processes

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**Abstract.** The current globalization processes conducted on a global scale are examined in the article. They relate to environmental problems and activities to solve them, reforms aimed at ensuring environmental stability in our country, tasks set in laws and decrees at the level of state policy, ensuring their implementation, the level of environmental education and environmental awareness of young people, their environmental culture, requirements for environmental education, issues of preserving the ecological environment, specific tasks of environmental education of youth, laws of development of society and nature, in-depth training in the relationships between them and the preparation of a modern-minded individual. The Constitution contains information about the law establishment of environmental duties and responsibilities of citizens. The authors give recommendations for the development of an environmental culture of youth.

## 1 Introduction

It is known that environmental problems are growing worldwide, causing enormous damage to the life and health of mankind. Scientific research conducted in world science shows that the main solutions to mitigate the consequences of the global environmental crisis are related to environmental problems and environmental culture, issues of forming an aesthetic attitude towards nature in the minds of young people. In particular, preventing a global environmental threat and eliminating its consequences, as an objective necessity, requires a philosophical analysis in a modern style of the possibilities for integrating environmental consciousness and culture, in particular, eco-aesthetics, with other forms of social consciousness while creating strong scientific, theoretical, methodological, and conceptual foundations.

Today, the need for scientific research of deterministic, synergetic, systemic mechanisms of ecological attitude towards nature and aesthetic culture of society in the system of criteria that determine socio-economic, spiritual, and cultural progress and the future of humanity is on the agenda.

In Uzbekistan, on the initiative of the head of state, special attention is paid to the prevention of a number of problems in the field of ecology, mitigation of negative consequences, environmental protection, and increasing the ecological culture of the

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population. Developing an aesthetic attitude towards nature has become one of the main priorities of state policy.

“We need to seriously address the most important issue—increasing the ecological culture of the population. Of course, such problems cannot be solved by administrative means only; this can be achieved by cultivating in the souls of the younger generation a love for Mother Nature, a sense of belonging to her” [1]. In this regard, the development of modern criteria related to the formation of environmental consciousness and culture in each individual, aesthetic attitude to nature, and ensuring the sustainability of the natural environment in society as a whole is of great importance.

Organization of environment and nature protection for students in higher educational institutions of Uzbekistan, pedagogical aspects of the foundations of environmental education, causes of environmental danger in the era of globalization, ways to eliminate it, youth interest in nature and environmental protection, scientific research aimed at enhancing the sense of greatness were conducted by K. Abdurakhimov, I. Ayubova, P. Berdanova, N. Bozorova, R. Juraev, N. Isakulova, Sh. Kamolkhodzhaev, A. Mankova and other scientists. Issues of environmental monitoring of industrial regions using mathematical models and numerical algorithms for solving problems of transfer and diffusion of harmful substances in the atmosphere were studied by F.B. Abutaliev, S.K. Karimberdieva, M.L. Arushanov, N. Ravshanov [2,3], D. Sharipov, D. Akhmedov, F. Muradov[4,5], T. Shapiev [6,7] and other scientists.

Theoretical and practical problems of developing students' environmental awareness, their active participation in the life of society, and analyzing the masterpieces of our spiritual heritage were studied by M. Allayarov, M. Alikulova, S. Mamashokirov. The development of ecological culture and socio-ecological competence of students in the educational process was studied in the works of Anisimov T., Gorelov A., Kalinin O., Paputkova G., Perfilova O., Seitzhanova R., Kholnazarov S., and N. Chebyshev [8–10]. A qualitative analysis of these literature sources proves that the problem of ecology is still relevant today.

2 Methodology

In this regard, first, we found it permissible to prove by scientific analysis that knowledge of the term “ecology” and the associated environmental processes are interconnected and continuous, and their systematization serves to ensure the development of society (see Fig. 1).

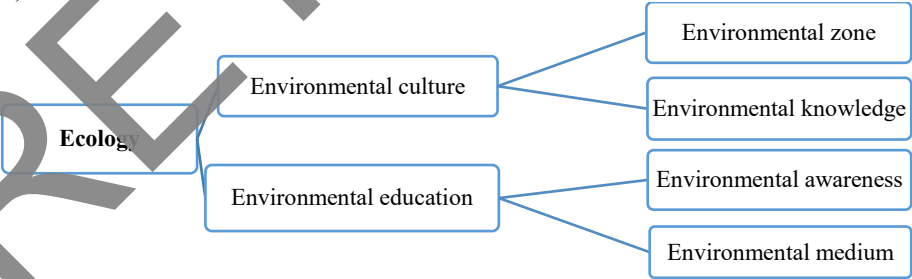


Fig. 1. Interconnected system of environmental processes

Ecology is the science of the Motherland, the home in which the relationships of living people with each other and with the environment are expressed. Ecology can also be characterized as a teaching, a doctrine that expresses human interaction with nature and the environment and studies these relationships. As we know, disruption of the relationship between man and nature leads to environmental disasters. Man is capable of much, but it is

very difficult to prevent a global environmental catastrophe. Thanks to this, it is not difficult to understand that environmental disaster is a big global problem. From this point of view, preserving the ecological situation, and understanding that it needs to be protected, is what is called human environmental awareness.

The fact that every person, with a high level of understanding and consciousness, tries to preserve the environment, indicates that he/she is an ecologically educated person. To implement an ecological culture, a person must develop an environmental consciousness. This consciousness is focused on managing the environmental situation. However, for people to take a responsible approach to maintaining the environmental situation and correcting certain situations, they must develop greater responsibility.

The formation in each person of such qualities as protection from pollution of the house, street, neighborhood, village, and city, in which he/she lives, its improvement, landscaping, preservation and rational use of natural places in their original form, protection of the nature of our country, are integral parts of the environmental education. The key is making environmental stewardship feel accessible and rewarding for people in their everyday lives, rather than lecturing or preaching. If we can spark that innate human curiosity and appreciation for the natural world, I believe that will go a long way towards instilling a lasting sense of respect and responsibility.

The goal should be to make environmental education feel relevant, engaging and even fun for students. If we can spark that innate sense of wonder and responsibility at a young age, it will hopefully blossom into a lifelong commitment to protecting our natural world. The initial basic understanding of environmental education and upbringing begins in secondary schools. Not everyone equally understands the essence of the concept of environmental culture at a time when special attention is paid to environmental safety and environmental protection. To consciously resolve issues of rational use of natural resources and their protection, it is necessary, starting with the family and preschool educational institutions, to form in children a spirit of love for nature, to instill environmental knowledge in their consciousness. This is an important condition for the formation, in the future, of a generation capable of protecting the environment and rational use of natural resources. As is known, the main tasks and goals of environmental education are to interest a person in nature and the realities occurring in it, to identify the causes of problems between man and nature, to find ways to solve them, and measures to implement environmental protection in the presence of sufficient environmental knowledge. The objectives of environmental education for youth are presented in Figure 2.

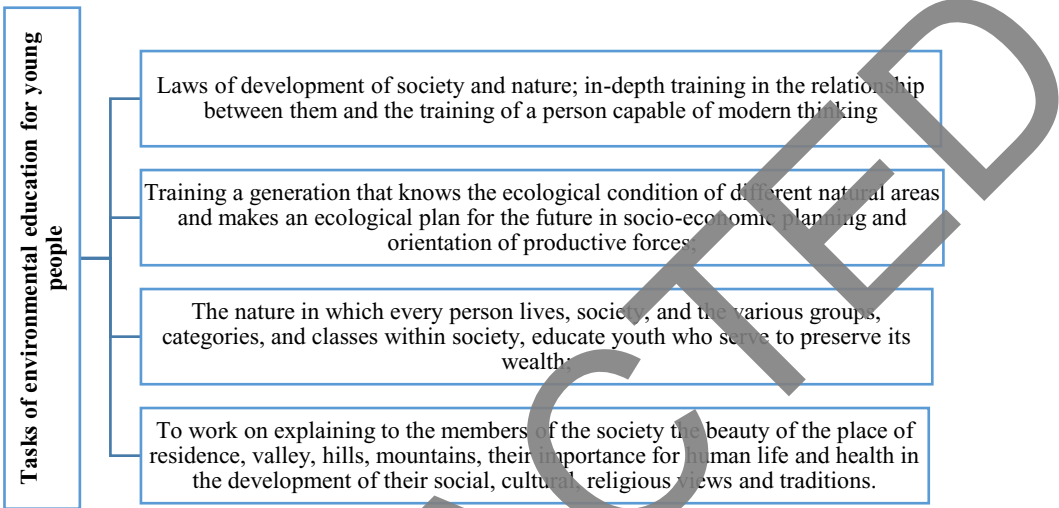
All teachers in the education system are responsible for the above tasks, and their specific programs, plans, and road maps must be defined.

Ecological culture is a high indicator of practical activity aimed at acquiring deep knowledge about the environment, a sense of respect for nature, caring for plants and animals, rational use of natural resources, and concern for their reproduction. A person who is able to embody these qualities can be called a person with environmental education [11].

Citizens raise an excellent point about the critical importance of instilling environmental awareness and responsibility among our youth, especially given the significant demographic they represent. With young people making up 64% of our country's population, their education and civic engagement will be critical in shaping the future of our society.

In the context of the modernization of the country's socio-economic life, our student youth come face to face with the environmental situation and the importance of environmental conservation or rational use of natural resources. The essential features of an ecological culture of scientific and methodological content, are instilled into their thinking using new pedagogical technologies and modern methods. That's an excellent point about the importance of engaging a diverse range of stakeholders - from researchers to experienced educators to youth organizations - in fostering environmental awareness and responsibility

among young people. By bringing together these varied perspectives and areas of expertise, we can create a more holistic, impactful approach. The key is helping students grasp the intrinsic connections between the natural world, their social environment, and the very fabric of human existence. When they can truly internalize that interrelatedness, it cultivates a deeper, more nuanced understanding of environmental issues.



**Fig. 2.** Objectives of environmental education of youth

Really compelling point about the essential role student youth can play in addressing critical environmental issues and resource management challenges facing our country. As the next generation of citizens and leaders, their active involvement is crucial.

As Uzbekistan's global influence and regional leadership continues to grow, the environmental stewardship demonstrated by our young people will be a key component of our national reputation and soft power. Their actions and advocacy will directly shape perceptions of our country's commitment to sustainability and responsible resource management. Our students also contribute directly to these opportunities. The growing international authority of the country is expressed in attempts to find solutions to universal, regional, territorial environmental problems, in the activities that it carries out in this area, and in the practical work that it does to improve the ecological environment. To realize activities and practical works conducted to improve the ecological environment, large volumes of funds are allocated from the state budget to overcome global, regional, territorial environmental shocks. These funds are also aimed to overcome existing environmental problems in our region. That's an excellent point about the value of establishing cooperative partnerships with international organizations to engage students in addressing real-world environmental challenges facing our country. By tapping into a broader network of expertise and resources, we can provide students with meaningful opportunities to apply their knowledge and make tangible impacts.

By participating in initiatives to protect ecological balances and remediate problematic environmental conditions in certain regions, these young people are gaining invaluable practical experience. They're not just learning in the classroom, but directly applying their knowledge and skills to tangible challenges facing their communities.

Young people, including students, occupy an important place in the implementation of socio-economic reforms conducted in the Republic of Uzbekistan. In this regard,

environmental education is given special attention in the educational system. In the process of forming a civil society, solving issues of environmental education of students requires the active participation of officials of educational institutions and representatives of public organizations. Work is also underway to improve the environmental culture of young people, including students, and deepen their environmental knowledge. That's a really positive development - improving the environmental education within our higher education system is such a crucial step. Equipping the next generation of specialists and leaders with a strong foundation in ecological principles and sustainability practices will pay huge dividends. In this regard, it should be noted that the joining of bachelors and masters from universities to the environmental movement, their proposals and considerations for solving environmental issues, and the presentation of scientific conclusions are the aspects of the effective activities of the environmental movement.

An important tool for influencing the environmental education of students is that students are aware of the current issues of the environmental situation in the current period of globalization, that is, issues that are acquiring global, regional, territorial significance, and their solutions, explained to young people by qualified specialists and introduced into their consciousness during the period of society modernization.

During the transition period of the economy, "economic aspects of environmental decision-making", that is, the harmonization of environmental and economic policies, acquired particular importance in Uzbekistan.

Comprehensive organizational, socio-economic and legal measures implemented in our country led to an increase in the level of environmental protection and safety. It is clear that there is a strong institutional and legislative framework for achieving tangible progress on critical issues.

We emphasize the fundamental importance of the provisions of the Constitution relating to the management and conservation of natural resources. Enshrining these principles at the highest level of our legal system serves as an inviolable guarantee of establishing environmental protection as a core national priority.

Second, laws developed on the basis of the above constitutional norm are taken as a basis, that is, directly aimed at the protection of natural resources and the rational use of natural resources. As an example, we can cite the Land Code of the Republic of Uzbekistan, and its laws "On the Protection of Atmospheric Air", "On Waste", "On Environmental Expertise", "On the Safety of Hydro-technical Structures", "On Radiation Safety" and other regulatory legal acts.

It is well known that the upbringing of a comprehensively mature individual, ensuring his/her high-quality education, consistently increasing his/her intellectual, ideological, political, moral, labor-aesthetic, physical, environmental, economic, and legal awareness, the unity of their consciousness, behavior, and activities, as well as the unity of the organization of educational process in individual, group, and socio-political aspects, the creation of pedagogical systems that ensure the composition and implementation of forms of education and require adherence to the ideas of this system are of great importance.

The process of education and training in a social democratic society emphasizes the importance of social interactions and relationships. It recognizes that human beings are inherently social creatures and that our interactions with others shape our perspectives, values, and understanding of the world. Therefore, education encourages individuals to engage in a wide range of social activities and build meaningful connections with people from diverse backgrounds.

Consequently, in achieving the level of a perfect person, the role of education that ensures the self-realization of the individual is of great importance.

The education process is multifactorial. That is, the formation of a student's personality occurs under the direct and indirect influence of the family, educational institution, public,

social environment, as well as a variety of situations. The results of the educational process are not usually unambiguous. This is due to the psychological (individual, typological), physiological and physical characteristics of students, their life and spiritual experience, attitude towards the environment, possession of environmental knowledge, and personal position.

The process of environmental education and the acquisition of environmental culture is usually accompanied by overcoming relationships and their characteristics that arise as a result of self-education, and negative connections of the individual with certain phenomena in society.

As a result, self-discipline contributes to the formation and improvement of personality traits that have social value.

Formation of environmental culture skills among young people is the main task of social education, in the process of organizing which a number of tasks are solved (see fig. 3).

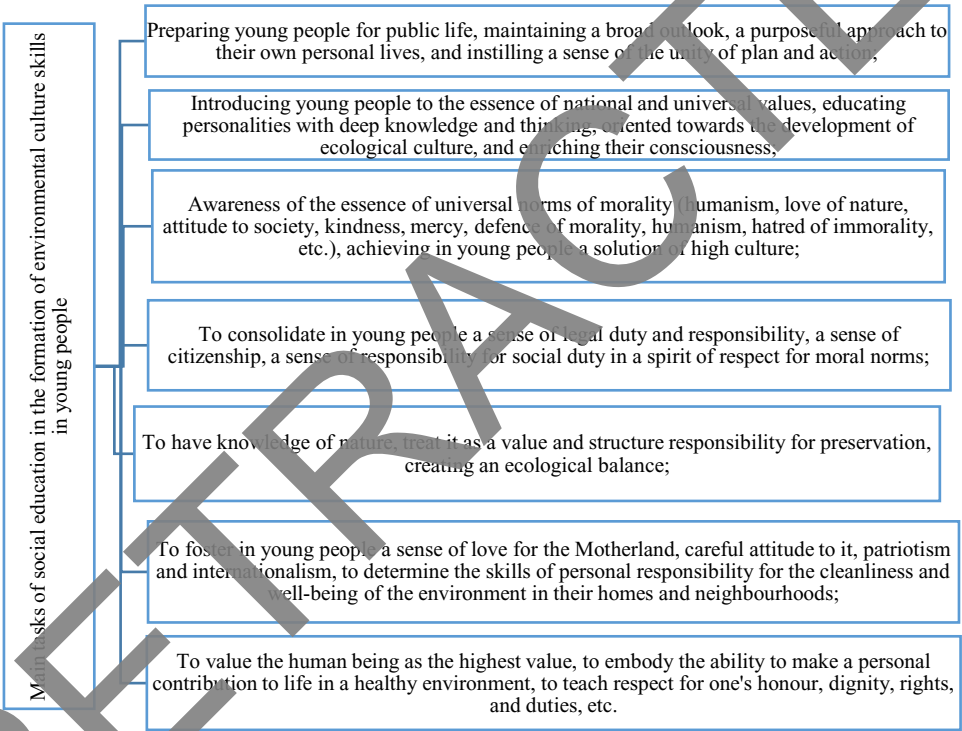


Fig. 3. The main tasks of social education in developing environmental culture skills among young people

While ensuring the fulfillment of the above tasks for the development of the ecological culture of youth in the education system of the Republic of Uzbekistan, educational processes conducted in universities are realized on the basis of modern processes, the educational environment, and innovative and integration approaches. After all, mastery of ecological culture requires the implementation of general goals and objectives, based on specific private objectives and goals of moral, intellectual, physical, environmental, economic, legal, and political education of the individual

Overall, pedagogical education provides a framework for learners to develop a sense of collective responsibility for environmental issues. By raising awareness, promoting active

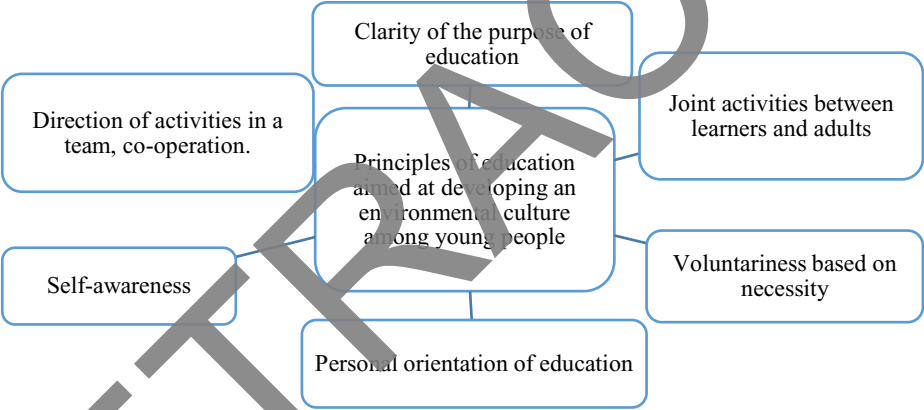


engagement, fostering collaboration, encouraging critical thinking, cultivating ethical values, and facilitating reflection, pedagogical approaches empower learners to recognize their role in addressing environmental challenges and inspire them to take collective action for a sustainable future.

The main task on the way to achieving this goal is to educate the individual on the elements of general culture, that is, the intellectual, moral, physical, aesthetic, economic, environmental, legal, political, and labor culture of the individual.

As is known that the principles of education reflect the essence of knowledge, skills, behavior and personality traits that must be acquired by students in accordance with the goals and objectives set in the content of education. The content of education, on the other hand, consists in the essence of social requirements for the formation of each individual, aimed at achieving environmental sustainability, ensuring socio-economic development, the content and level of interpersonal relationships, awareness of the value of oneself and one's society, knowledge of the influence of the environment on well-being of the society. Systematic and continuous implementation of the quality of this process serves to ensure the effectiveness of the development of environmental culture among young people.

The content of education and upbringing, considering modern innovative, integration, motivational, acme logical, axiological approaches to learning, is based on the following principles for building an ecological culture for youth (see Fig. 4).



**Fig.4.** Principles of education aimed at developing environmental culture among young people

The approach to these principles in educational processes is to search for the best examples of the development of the concept of ecological culture in the minds of young people [12], on the basis of which the definition of life norms and values of the educator work ensures the student's activity in the education process. A good result is achieved through the educational influence of the life experience of adults, their personal example, self-awareness in young people, and recognition of oneself as the subject of one's personal life and activities, which contains skills such as civic, professional and moral self-awareness.

Today the organization of the pedagogical process in the development of ecological culture among young people can benefit from innovative, integration, acme logical, and axiological approaches. These approaches contribute to the holistic development of individuals by targeting various aspects of their skills and abilities.

Here are some tips for developing environmental spirituality in students [13-18]:

- the most important way is to develop student's skills in understanding environmental problems, preserving and protecting the natural environment based on providing them with

correct, reasonably perfect knowledge about environmental problems and their characteristics;

- promote personal participation of students in the implementation of their environmental thinking through practical exercises (excursions, examples or laboratory exercises);

- studying environmental issues through discussions, presentations and group work, providing students with the opportunity to share their ideas for solving environmental problems by expressing their opinions and paying attention to the opinions of others;

- to develop in students the ability to convey to the team (in the process of practical classes or various events) the ideas they have created and put forward on environmental problems and ways to solve them.

The state of Uzbekistan has huge, unlimited natural resources, but no matter how limitless and powerful the priceless riches offered to us by nature are, they certainly need to be preserved, protected, and saved.

### 3 Conclusion

The main task of today's youth is to work applying their knowledge and talents, diligently fulfill their civic duty and responsibilities, so that future generations can fully enjoy natural resources. It is necessary to remember that nature protection is one of the most pressing and important tasks in building our new society.

To summarize, it should be noted that the rich spiritual and cultural heritage and national values of the Uzbek people play an important role in the development of higher human qualities among young people, including environmental culture. The ecological scientific conclusions of thinkers, scientists, and teachers of Uzbekistan, which ensured the development of world science, in their pedagogical (educational) ecological essence occupy a special place among national values. The use of scientific and pedagogical views on ecology, put forward by them and contributing to the education in the minds of students for centuries of respect for nature, a positive attitude towards the environment, and instilling a sense of responsibility for nature conservation, is today an important ideological basis for effective environmental education and the development of environmental culture among student youth.

### References

1. Mirziyoyev S.M. New Uzbekistan strategy. Tashkent: Uzbekistan, 2021. 464 p.
2. Ravshanov N., Shafiev T.R. // J. Phys. Conf. Ser. 2019. Vol. **1260**, № 10.
3. Ravshanov N., Abdullaev Z., Shafiyev T. *Mathematical model and numerical algorithm to study the process of aerosol particles distribution in the atmosphere* // International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities, ICISCT 2019. 2019. P. 1–7.
4. Sharipov D., Abdullaev Z., Khafizov O. T // E3S Web of Conferences / ed. D. B. EDP Sciences, 2021. Vol. **264**.
5. Sharipov D., Muradov F., Akhmedov D. *Numerical modeling method for short-term air quality forecast in industrial regions* // Appl. Math. E - Notes. 2019.
6. Shafiev T., Nazarov S. // E3S Web of Conferences. EDP Sciences, 2023. Vol. **431**.
7. Shafiev T. et al. // E3S Web of Conferences. EDP Sciences, 2021. Vol. **264**. P. 01021.
8. Anisimov O.S. // Bulletin of the MAN RS. 2021. Vol. **1**. P. 13–16.



9. Chebyshev N.V., Filippova A.V. Fundamentals of ecology: textbook. New wave, 2010. 144 p.
10. Gurtueva T., Arslan H. // Procedia - Soc. Behav. Sci. 2013. **70**. 1442–1446.
11. Adambayev U., Djorayev D.E. // Acad. Res. Educ. Sci. 2022. **3**, 2. 125–134.
12. Dilova N.G. // Web Sch. Multidimens. Res. J. 2022. **1**, **7**. 29–32.
13. Dilova N.G. // Sci. Educ. 2021. **2**, **10**. 506–514.
14. A. Mecke, I. Lee, J.R. Baker jr., M.M. Banaszak Holl, B.G. Orr, Eur. Phys. J. B **14**, 7 (2004)
15. M. Ben Rabha, M.F. Boujmil, M. Saadoun, B. Bessaïs, Eur. Phys. J. Appl. Phys. (to be published)
16. F. De Lillo, F. Cecconi, G. Lacorata, A. Vulpiani, EPL, **84** (2008)
17. L. T. De Luca, Propulsion physics (EDP Sciences, Les Ulis, 2009)
18. G. Plancque, D. You, E. Blanchard, V. Mertens, C. Lamouroux, *Role of chemistry in the phenomena occurring in nuclear power plants circuits*, in Proceedings of the International Congress on Advances in Nuclear power Plants, ICAPP, 2-5 May 2011, Nice, France (2011)