CHAPTER «STATE ADMINISTRATION»

ECOLOGICAL REHABILITATION OF URBANIZED AREAS AS AN INTEGRAL PART OF SUSTAINABLE DEVELOPMENT

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Abstract. Implementation of market transformations in the new era of Ukrainian statehood objectively requires the development of a qualitatively new model of economy, primarily focused on ensuring sustainable socio-economic development. At the same time, ensuring the sustainable development of any country should be based on sound environmental policy, which requires a certain level of environmental culture and education. At the same time, ecological culture acts as a special direction of human life, on which not only the natural existence of modern civilization, its sustainable development, but also the future of the next generations, depends significantly. Without a clear understanding of the whole range of environmental issues, one cannot understand why some ethnic groups live in harmony with nature while others leave behind ruins. Why in some cases human life creates harmonious landscapes and ecosystems and in other cases the environment becomes a desert? The authors set out to explore the theoretical and methodological principles of ecological rehabilitation of urban areas, to substantiate the phenomenon of ecological rehabilitation in the context of achieving Sustainable Development Goals, to determine the role and place of environmental education as an integral part of the struggle for environment and ecological rehabilitation. The research hypothesis is based on the assumption that today in Ukraine

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the issues of ecological development of territories, preservation of the natural environment and ecological education of the local population are of special importance. The state leadership, executive bodies of all levels, local self-government bodies, public associations should, first of all, take care of the issues of preservation of the natural environment, rational use of national resources, rehabilitation of territories affected by human activities. Not only the current state of socio-economic development of the state, the health of the nation, but also the future of Ukrainian independence depends on how successfully these issues will be resolved. The practical purpose of the publication was to develop practical recommendations for increasing the role and place of local governments in the ecological rehabilitation of urban areas. Given the scientific and practical significance of the problem of environmental security of Ukraine at the present stage of state formation, it is planned to continue research on the problems of ecological rehabilitation of urban areas, primarily in the context of finding new mechanisms for public management of sustainable development of large cities.

1. Introduction

The search for new, more effective ways and mechanisms to ensure the life and work of mankind has always been not only a purely applied task, but also in some way determined the priorities for the development of modern world scientific thought, especially in the humanities. The present of human civilization is characterized by the emergence and growth of extremely acute globalization problems that have spread to virtually all spheres of life and beyond states and continents, affecting the vital interests of every inhabitant of the Earth, regardless of race, religion, citizenship or property status. According to the authoritative global think tank at the UN «The Millennium Project» (MP Node): humanity has already reached the point where it is essential to radically change and improve thinking about the future and make this thinking more accessible and inclusive through various media, in order to accumulate wisdom about the future in order to make the best decisions today [1].

According to the analysis, the problems of ecological culture were once taken care of by such well-known scientists as: R. Alexandrova, E. Girusov, N. Dezhnikova, V. Kobylyansky, D. Likhachev, M. Moiseev, V. Pavlov, V. Panov, G. Ryzhenkov, who stand on the position that modern society

must finally choose its future path – humanity will either change nothing and perish, or immediately transform their worldview, a way of interacting with nature and find ways to harmonious development.

The works of N. Anatska, N. Avramenko, G. Bilyavsky, I. Koteneva, O. Minaev, O. Plakhotnik, L. Egorova, N. Avramenko, were devoted to the historical aspects of ecological education, to the improvement of the conceptual and categorical apparatus in this sphere. Kostytska, M. Mammadov, A. Zakhlibny and others.

Issues of origin, development, role and place of ecological consciousness in the process of social relations were the subject of scientific research: R. Bidzhiev, A. Valitov, S. Deryabo, T. Ivanov, T. Kaznacheyev and others. The need to update approaches to the formation of ecological consciousness was considered in the works of N. Vinogradov, N. Dezhnikova, S. Deryabo, I. Zverev, V. Panov and others.

Despite the large number of scientific works of domestic and foreign scientists on various aspects of environmental safety, conservation of natural potential and reducing the negative impact on nature, special work to study the problems of environmental rehabilitation of large cities is not enough. The problem of ecological rehabilitation in the context of sustainable development remains insufficiently studied. Roles and places in this process of environmental education. The role of local governments in the ecological rehabilitation of urban areas.

The purpose of our study is to substantiate the theoretical and methodological principles and develop practical recommendations for ecological rehabilitation of urban areas. Research tasks were: research of the phenomenon of ecological rehabilitation in the context of achieving Sustainable Development Goals; defining the role and place of environmental education as an integral part of the fight against the natural environment and environmental rehabilitation of territories; development of practical recommendations for increasing the role of local governments in the ecological rehabilitation of urban areas.

The hypothesis of our study is based on the assumption that in the current conditions of state formation of Ukraine (when the vast majority of the territory is urbanized) the issues of ecological development of territories, preservation of the natural environment and ecological education of the local population become especially important. The state leadership, executive

authorities at all levels, local governments, and public associations must take care of the issues of preservation of the natural environment, rational use of national resources, and rehabilitation of territories affected by human activities. Not only the current state of socio-economic development of the state, the health of the nation, but also the future of Ukrainian independence depends on how successfully these issues will be resolved. Proper scientific support, the use of the best foreign tools in the field of ecological rehabilitation of urban areas will open new opportunities not only in the field of regional development, but will be the key to sustainable development of our state.

In the course of our scientific research a set of general scientific and special research methods was used, in particular: analytical, method of system analysis, methods of logic, normative-comparative analysis, method of analogy and structural analysis, method of deduction and modeling, etc. All this allowed to achieve the set goal, solve research problems and formulate practical recommendations.

2. Environmental rehabilitation and sustainable development goals

Analyzing the modern generally accepted principles of human civilization, it should be noted, first of all, that the UN Millennium Development Goal, adopted in 2000 by 189 countries at the UN Millennium Summit and which defined a comprehensive framework of values, is a valid guide for the whole civilized world. principles and key factors of development under the three main UN mandates, namely: peace and security, development, human rights. The roadmap for the implementation of the Declaration proposed a set of eight universal goals with specific deadlines and quantitative indicators aimed at eliminating all major obstacles to a dignified life for anyone in any society, namely: eradication of hunger and extreme poverty; ensuring access to education; ensuring gender equality; reduction of maternal and infant mortality; reducing the scale of AIDS and other diseases; ensuring environmental sustainability and harmonizing external assistance to developing countries [2].

For 15 years, the Millennium Development Goals have been a driving force in reducing income poverty, providing much-needed access to water and sanitation, reducing child mortality and significantly improving maternal health. In addition, they have given impetus to the global movement for free

primary education, encouraging countries to invest in future generations. Sustainable Development Goals has made significant progress in the fight against AIDS and other previously incurable diseases, including malaria and tuberculosis. The main achievements (compared to 1990) were: more than 1 billion people saved from extreme poverty; infant mortality and the number of children not attending school have decreased by more than half; the number of AIDS cases has dropped by almost 40% [3].

In September 2015, during the 70th session of the UN General Assembly, the world community set new guidelines for human development for the next fifteen years (2015–2030), which were called «Transforming our world: the 2030 Agenda for Sustainable Development» and were presented in the form of 17 global Sustainable Development Goals, namely: overcoming poverty; overcoming hunger, development of agriculture; good health and well-being; quality education; gender equality; clean water and proper sanitation; available and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduction of inequality; sustainable development of cities and communities; responsible consumption and production; climate change mitigation; conservation of marine resources; protection and restoration of terrestrial ecosystems; peace, justice and strong institutions; partnership for sustainable development [4].

By participating in the historic UN Summit on Sustainable Development in Rio de Janeiro (Rio + 20), Ukraine has unequivocally demonstrated its strategic will to shape its own future based on its principles. Thus, in January 2015, the Decree of the President of Ukraine Petro Poroshenko approved the Sustainable Development Strategy «Ukraine – 2020», which, in addition to general phrases about the transition to a new era of history and a unique chance to build a new Ukraine, identified a number of specific practical measures in order to implement European standards of living in our country and reach a leading position in the world [5].

According to the Roadmap and the priority priorities for the implementation of this Strategy, it was envisaged to implement 62 reforms and development programs of the state within the framework of the identified four vectors of movement (development, security, responsibility and pride). At the same time, the implementation of such reforms and programs as: reform of the national security and defense system was identified as a priority; renewal of power and anti-corruption reform; judicial reform; law

enforcement reform; decentralization and public administration reform; deregulation and business development; health care reform; tax reform; energy independence program; program to popularize Ukraine in the world and promote Ukraine's interests in the world information space.

The analysis allows us to state that as of 2020, none of the identified 25 key indicators that assess the progress of reforms and programs (paragraph 4. Strategic indicators for the implementation of the Strategy) has not been achieved. None of the announced reforms (programs) has been implemented in full, but in certain areas of socio-political life, small and medium-sized businesses, public customs and integration into the EU customs community, housing and communal services, investment attraction, optimization of public authorities; pension reform, reforms of health care, education, culture, public policy in the field of science and research, etc.) the situation has deteriorated. Of particular concern is the lack of qualitative changes in the implementation of such socially significant reforms as: qualitative professional renewal of power and anti-corruption reform; ensuring everyone the right to a fair trial by an independent and impartial tribunal; creation of a professional institute of civil service; ensuring the capacity of local self-government and building an effective system of territorial organization of power, etc.

The Decree of the incumbent President of Ukraine V. Zelensky of September 25, 2015 № 70/1 «Global Sustainable Development Goals to 2030 and the results of their adaptation to the specifics of Ukraine's development» once again supported the UN resolution and confirmed the unwavering determination of the Ukrainian state to fight for achieving Sustainable Development Goals [6; 7].

The annual report of UN experts «The Sustainable Development Goals Report, 2019» provides a detailed overview of the efforts of the world community over the past four years, which were aimed at achieving Sustainable Development Goals, highlighting areas where positive progress has been made and issues still needed work extra so that no one is left behind. The report notes progress in some areas, such as reducing extreme impoverishment, continuous immunization, reducing child mortality and expanding people's access to electricity. However, it is noted that global measures have not affected the poorest people and countries, forcing them to suffer the most. According to UN Secretary-General Antonio Guterres,

«It is clear that a deeper, faster and more ambitious response is needed to bring about social and economic transformation to achieve our 2030 goals» [8].

The key findings contained in the UN Annual Report include:

– growing inequality between countries in the world and within individual countries requires immediate attention and concrete action;

– more than half of the children living on the planet Earth cannot read and count, and three quarters of them live in South Asia and sub-Saharan Africa;

– the level of extreme impoverishment in rural areas is three times higher than in cities;

– young people are more likely to suffer from unemployment than adults;

– at least half of the world's population does not have access to basic health services, only a quarter of people with severe disabilities receive appropriate social assistance and benefits;

– women and girls continue to suffer from systemic inequalities and discrimination, experiencing significant obstacles to equality [9].

Although the number of people living in conditions of extreme impoverishment has decreased from 36% (in 1990) to 8.6% (in 2018), the rate of reduction of impoverishment is beginning to slow down, especially in the context of growing dangers, associated with permanent pandemics, relentless armed conflict and natural anomalies. The danger of global famine is growing after a long recession.

The natural environment continues to deteriorate at an alarming rate: the ocean level is rising, its acidification is accelerating and according to forecasts by 2100 it will increase by 100-150%. One million species of plants and animals are on the verge of extinction, and land degradation is steadily continuing.

In June last year, a team of independent experts from the SDSN Secretariat and The Bertelsmann Stiftung prepared a report on sustainable development in 2019. «Transformation to achieve sustainable development goals», which presents the Sustainable Development Goals (SDG Index), information panels for all UN member states, as well as the framework for the implementation of Sustainable Development Goals for six broad transformations. To date, this report remains almost the only well-known authoritative comparative analysis, which compares the achievements of leading countries and developing countries in the context of sustainable development [10].

According to these authoritative international experts, none of the 193 countries that have agreed to implement the 17 UN goals in the field of sustainable development will be objectively unable to do so in a timely manner. At the same time, industrialized countries play a rather ambiguous role in achieving Sustainable Development Goals – on the one hand, they are closest to the Millennium Development Goals, and on the other hand, it is the Organization for Economic Co-operation and Development (OECD) that contributes to environmental and economic costs. in underdeveloped countries.

The authors are particularly concerned about agriculture and soil pollution: a quarter of the world's greenhouse gas emissions are from land management, more than 78% of all countries are in the red zone due to nitrate pollution, and the mismatch between malnutrition and overproduction continues to grow.

According to an SDSN report, The Group of Twenty, Major Advanced and Emerging Economies, and the G20 are fully responsible for about half of the difficulties in implementing Sustainable Development Goals, primarily in funding the programs. Only a few G20 countries have complied with the UN requirement to allocate 0.7% of GDP to international sustainable development assistance.

Sustainable development of cities and communities (Sustainable Development Goal 11). Despite the measures taken by almost all countries of the world to ensure the openness, security of life, viability and environmental sustainability of their cities (settlements), to achieve this Millennium Development Goal by 2030 will not be objective. For example, in the last five years, the number of people living in slum on the planet has increased to more than 1 billion.

As shown by the analysis, the results of which are highlighted in Figure 1, 80% of the world's urban population living in slum and informal settlements in 2018 live in East and Northeast Asia (370 million people), sub-Saharan Africa (238 million people), and in Central and South Asia (227 million people). The dynamics of increasing the number of inhabitants of slum is influenced not only by growing urbanization, but also by the growth of the Earth's population, which significantly exceeds the pace of construction of new low-cost housing. According to expert estimates, by 2030 about 3 billion people will need basic and inexpensive housing.

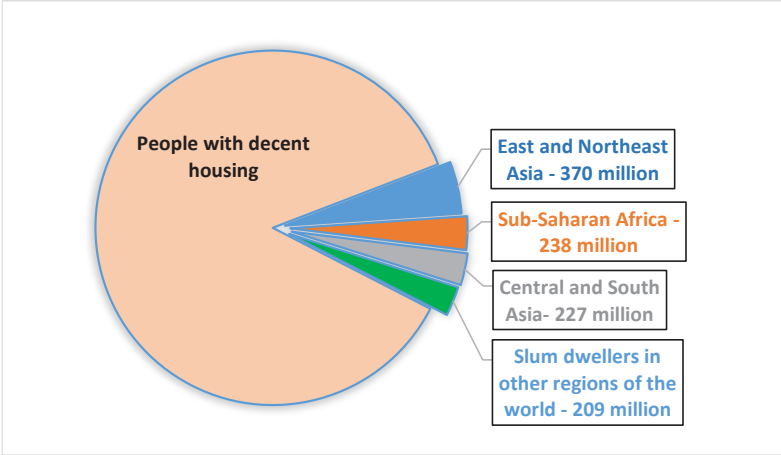

Figure 1. Urban population of the Earth, living in slum and informal settlements in 2018 (in millions of people)

Notes: author's development on the basis of open data United Nations publication issued by the Department of Economic and Social Affairs [11]

According to data from 227 cities located in 78 countries, in 2018 only 53% of urban residents had convenient access to public transport stops (within a radius of 500 m), or railway / ferry stations (within a radius of 1000 m). And in sub-Saharan Africa, only 18% of residents had easy access to public transport.

In total, 2 billion people in the world were not covered by waste collection systems, and 3 billion did not have access to equipped waste disposal facilities. Instead, by 2050, total global waste is expected to double (from 2 billion to about 4 billion metric tons). In low– and middle-income countries, the vast majority of municipal solid waste landfills look like open landfills and contribute to air, water and soil pollution, as well as greenhouse gas emissions, including methane. As of 2016, nine out of ten cities in the world breathed polluted air that did not meet the requirements of the World Health Organization (WHO), and half of them breathed air with pollution levels twice as high as normal. Over the last decade, the overall air quality of more than 50% of the world's population has deteriorated. And in low– and middle-income countries, more than 97% of cities with a population of more than 100,000 did not meet the established air quality parameters.

According to our estimates, the safety of life and environmental sustainability of the vast majority of cities (settlements) of the planet by 2030 will not only not improve, but on the contrary – will have worse characteristics than now, due to uncontrolled growth of cities, rapid population growth, congestion of infrastructure and systems life support (waste collection, water supply and sanitation systems, road transport system, etc.).

Protection and restoration of terrestrial ecosystems (Sustainable Development Goal 15). The consequences of human life continue to cause irreparable damage to the state of the planet's ecosystems, on which all biological species directly depend, and thus the future of civilization. Although the process of deforestation in general has slowed down, the disappearance of greenery continues to develop at an alarming rate. According to the UN, one million species of flora and fauna are threatened with extinction. Over the past 20 years, about 20% of the total land area on our planet has degraded.

The rate of loss of global biodiversity is growing, which is steadily bringing us closer to the point beyond which unpredictable and irreversible changes in the Earth's ecosystems will begin. According to The Red List Index, which tracks data on more than 20,000 species of mammals, birds, amphibians, corals and cicadas, the risk of imminent extinction of species on the planet has increased by about 25 years 10%.

As can be seen from Figure 2, over the past thirty years, the negative process of global biodiversity loss on the planet has reached alarming proportions and has a steady tendency to deteriorate. According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the loss of biodiversity on Earth is currently the fastest in human history.

In the period from 2000 to 2015, more than 20% of the total land area on our planet degraded. In all regions of the world (except Europe, North America, North Africa and West Asia), the ratio of degraded soils to total land area ranged from 22.4% to 35.5%. During the same period, forest area as a percentage of total land area decreased from 31.1% to 30.7% (or more than 58 million hectares of forest), primarily in Latin America and sub-Saharan Africa.

According to our forecasts, it is quite probable that by 2030 the planned results in the field of protection and restoration of terrestrial ecosystems and promotion of their rational use will not be achieved. Restoration of biological diversity on the planet, truly careful forest use, real fight against

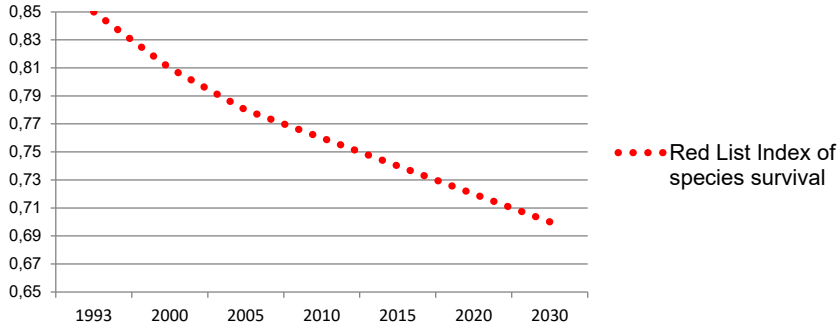

Figure 2. Red List Index of biological species on the planet (1993–2019) and forecast until 2030

Notes: author's development based on open IPBES data [12]

desertification and land degradation require qualitatively new mechanisms of interstate cooperation in this area with the participation of all countries, as well as targeted comprehensive programs under the auspices of international environmental organizations.

3. Ecological education and ecological rehabilitation of territories

Environmental education is the main tool for educating a responsible attitude of man to the environment. Understanding the consequences of their actions, humanity will move away from the path of self-destruction. Environmental education has a difficult task – to direct the consciousness of man and society to understand nature not as an object of exploitation, but as a carrier of the highest value – the value of life. Environmental education focuses on critical thinking, problem solving, and effective decision-making skills. Such education uses processes that involve people in observation, measurement, classification, and experimentation to help discuss, predict, and interpret data on environmental issues.

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), environmental education is vital for the transmission of inherent respect for nature among society, contributing to public environmental awareness. At the same time, special emphasis is placed on the role of environmental education in ensuring the future development of future generations and the formation of a proper quality of

human life by protecting the environment, overcoming poverty, minimizing inequality and ensuring sustainable development [13].

Historically, environmental education has emerged and formed throughout human existence. The origins of spontaneous environmental knowledge date back to primitive society. Man generalized his ecological experience as a farmer and pastoralist, choosing those plants and animals that could sustain his life.

V. Krysachenko wrote about such activity in his work «Ecological culture: theory and practice» that thanks to it man began to use not only objects of the environment, but also the mechanisms of their formation, acting in harmony with nature, making selection. This has become the most optimal form of human interaction with the world by saving the biosphere and itself, because this path is the key to human survival.

In its initial state, «environmental education» began to be implemented in the ancient civilizations of the West and especially the East. The ecological component was part of the overall picture of the world of the founders of philosophy – Confucius, Lao Tzu, Democritus and Aristotle. At the beginning of the XVIII century. Jean-Jacques Rousseau emphasized the importance of education, which focuses on the environment in his treatise «Emile, or On Education.» A few years later, Louis Agassis, a Rousseau-born Swiss man, encouraged students to «study nature, not books». All this helped to initiate ecological and educational activities for the study of nature, which began to appear in the late XIX – early XX centuries [14].

The development of ecological knowledge, closely related to the study of ecology, which began in the context of biology, namely – studied the relationship of living organisms with the environment, when humanity understands that living organisms evolve, and the most important role in this process plays external environment. This understanding is reflected in Charles Darwin's idea of the struggle for existence in wildlife.

Modern approaches to environmental education, which began to develop in the late nineteenth century, were based on the principles of studying nature and education to conserve resources. Such a socio-political phenomenon as fears for their future life on the planet began to spread, and thus public concern for health and the environment contributed to the unification of such a phenomenon as environmental protection. The introduction of the term «ecology» in 1866 by the German researcher and philosopher Ernst

Haeckel in his book «Generelle Morphologie der Organismen» to denote biological science, which studies the interaction of organisms with their environment, contributed to a closer connection between the science of ecology and environmental education [15].

In relation to plants, this term was first used by the Danish botanist E. Warming in 1895, after which the object of ecological knowledge began to be considered not only living organisms and their communities, but also the biosphere as a whole.

The next stage in the development of environmental science in the era of neo-industrialism was the justification of the so-called «Laws of Ecology Commoner», the main provisions of which are:

– «everything is connected with everything» – the living dynamics of complex and branched ecological chains form, in the end, a single interconnected system;

– «everything must go somewhere» – an informal paraphrase of the fundamental physical law of conservation of matter, which highlights one of the most difficult problems of applied ecology (the problem of assimilation of the biosphere waste of human civilization);

– «nature knows better» – this position is divided into two relatively independent theses: the first, echoes the well-known slogan «back to nature» (can not be accepted because of its unrealistic); the second, related to the call for caution in the use of natural ecosystems (important and constructive);

– «nothing is given for free» (this law combines the three previous ones): the global ecosystem is a single whole, within it nothing can be won or lost and it cannot be the object of general improvement; everything that was taken from nature by human labor must be reimbursed; payment for this bill cannot be avoided, the fee can only be deferred [16].

At one time, J. Locke (1632–1704) argued that all knowledge is based on experience, and the purpose of society is human happiness. He was one of the founders of the empirical-sensualist theory of cognition and believed that man has no innate ideas, he is born with a «blank slate» and is ready to perceive the world around him through his feelings through inner experience – reflection. His theory of labor is that man has the right to take something from nature, if he combined it with his work (the land itself has no value, only work on it). A person has no right to take more than he needs. You can't take anything from nature and then let it go bad [17].

J.-J. Rousseau (1712–1778) proposed to actively use: excursions to nature, in combination with heuristic conversations, observations of its phenomena and processes, human economic activity, work in nature (provided the emphasis on careful, reasonable attitude to the environment). «Make your child attentive to natural phenomena and you will soon make him inquisitive». In his work «Emil» first formulated the concept of natural education, which provided for the upbringing of a child in the bosom of nature, emphasizing the crucial importance of nature as an educational factor.

JG Pestalozzi (1746–1827) in his theory of elementary education supported the development of the idea of «natural education». According to which in the phenomena of the world (the process of cognition means a gradual movement from simple to complex and ends with the construction of a holistic picture of reality), in particular in natural objects, it is necessary to distinguish the simplest, natural elements that characterize their harmonious essence. A. Disterweg (1790–1866) as a follower of J. Pestalozzi, believed that nature is an essential component of real education, a means of moral and intellectual education. Knowing nature is not only its general feeling, but also knowledge of its facts and laws.

The foundation of modern environmental education was laid by P. Geddes (1854–1932). He was the first to note the vital, defining relationship between the quality of the environment and the quality of education of the younger generations, expressed a number of ideas about the goals and objectives of environmental education, and proposed innovative learning technologies through nature [18].

S. Shatsky made a significant contribution to the development of ideas of aesthetic and ecological education with his experiments in the labor colony «Vigorous Life» (1911–1917). He paid much attention to the issues of aesthetic education, developing a comprehensive system of involving children in the world of beauty – music, fine arts and drama. Impressions of beauty are part of the overall structure of the worldview, they regulate the composition of the components of the image of the world in the human mind, including nature.

V.I. Vernadsky once argued that man now for the first time really understood that he – a resident of the planet, and therefore must think and act in a new aspect – not only the individual, family or clan, states or their allies, but also in the planetary aspect.

Decisive for the development of environmental education as a phenomenon on a planetary scale was 1970, when on April 22 was first held «Earth Day» – a national training dedicated to solving environmental problems, which laid the foundations of the modern environmental movement. That same year, the President of the United States, Richard Nixon, passed the National Environmental Education Act, which enshrined environmental education as a mandatory element of the K-12 school curriculum. In addition, the National Association of Ecological Studies was established in the same year to improve environmental literacy in the world by providing resources to teachers and promoting environmental curricula [19].

Of great importance to most Western European countries was «The Community's Second Action Program» (1978–1983), a document that proclaimed a system of guidelines for interaction with the environment that can prevent the degradation and pollution of the latter, namely:

– interaction with the natural environment – «prevention is better than cure»;

– elimination of any forms of exploitation of natural resources and the environment in general, which violate the ecological balance;

– payment of expenses for liquidation of consequences of pollution should be carried out by the direct «polluter»;

– protection of the natural environment is everyone's business.

Environmental education does not appear as an end in itself, but as a means of forming an environmentally oriented life position. In addition, environmental education acts as a psychological and pedagogical process of human impact, the purpose of which is to form a theoretical level of environmental consciousness.

4. Conclusions

The author's critical analysis of the achievements towards Sustainable Development Goals, proclaimed five years later by «The 2030 Agenda», as a fundamental strategy for ensuring the overall well-being of humanity on a prosperous planet, shows that despite some progress in key areas and positive developments in in some areas of life – to achieve a radical change in the widespread introduction of sustainable development failed. The planetary degradation of the environment continues, the unprecedented high level of greenhouse gas emissions cannot be overcome, the acidification of the oceans increases, coastal erosion and extreme meteorological phenomena

spread, destructive natural disasters become more frequent, degradation of biodiversity occurs, and land degradation occurs. The problem of hunger is growing in the world. About half of the world's population does not have access to basic health services. More than half of the children living on the planet cannot read or count. Only 28% of people with severe disabilities receive cash benefits, and women around the world continue to face systemic inequalities and discrimination. These global problems will have the most severe consequences for the poorest regions and segments of the world's population. Already in 2050 there will be a large-scale shortage of food and about 140 million people will be forced to seek livelihoods in other countries [20].

It is obvious that in order to achieve the radical social and economic transformations proclaimed by the UN member states by 2030, the world needs to introduce a fundamentally new quality model of sustainable development management at the regional, national and global levels, especially in such areas of human life as: effective financing; ensuring viability; development of a sustainable and inclusive economy; increasing the capacity of institutions; regional and local development; more optimal use of resources; as well as combining scientific potential, technology and innovation on the basis of digital transformation.

The new paradigm of sustainable development management in the form of state regulation of the process of achieving 17 Sustainable Development Goals is designed to ensure the adoption of strategic decisions that would serve global interests, and national efforts were supported by effective international cooperation through diplomacy and crisis prevention. A single mechanism of state regulation of sustainable development at the global, national and regional levels will allow to implement the «Agenda until 2030» as a holistic strategic task and successfully identify the most priority areas of joint efforts to take targeted action. It is through the introduction of state regulation that sustainable development will make it possible to more effectively identify the interrelationships between existing human problems, apply an integrated approach and significantly increase investment in the fight against poverty, inequality and climate change. And last but not least, a single global system for collecting data from all countries on sustainable development indicators (most countries now collect only half of global indicators on a regular basis).

The practical activities of local authorities in relation to the ecological rehabilitation of urban areas should include the following mechanisms of public administration:

– a set of systems and forms of organization of state power and local self-government, their relationships;

– a combination of organizational and managerial forms with the achievement of the optimal management structure in the field of environmental protection in large cities.

Environmental policy in large cities is influenced by various political and economic factors and is closely linked to the system of administrative and territorial organization of the country. At the same time, within a large city, both local authorities and territorial bodies of state executive power are responsible for environmental policy, which do not always reach a consensus on the priority of such policies for a particular city.

Environmental policies of local authorities should be aimed at solving environmental problems. This involves improving the institutional and organizational principles of management, raising public awareness and updating environmental priorities, creating conditions for the rational use of local resources at all levels – from the big city to the state.

The main directions of forming an integrated environmental policy of local authorities are to ensure appropriate active links between sectors of the economy, environmental protection, socio-political life of the local community, as well as all actors, regardless of ownership. An integrated environmental policy is a key element of a sustainable development strategy at both the national and local levels. The content and direction of national and local environmental policy determine the ways and mechanisms of environmental management, and the main criterion for assessing its effectiveness is the compliance of practical approaches to the principles of sustainable development in relation to the environmental component. The principles of local environmental policy development are determined on the basis of the formation of the basic principles of environmental policy for each large city, while effective local environmental policy should contribute to improving the environment, resources and conservation.

The main mechanisms for implementing environmental policy by local authorities are to ensure the proper functioning and development of a large city by applying new organizational and managerial approaches to coordinate

the activities of local authorities, businesses, NGOs and citizens in the field of environmental protection, the gradual introduction of new practices ecological planning and organization of realization of city-wide programs and acts of ecological direction. Underestimation of the environmental component in the policy of socio-economic development of large cities hinders effective resource conservation, ecological and constructive restructuring of the economy, greening of the entire economy, which involves the development and implementation of effective mechanisms for integrating environmental policy into the city's sectoral economy. It is recommended to constantly monitor and modernize the management system in the field of environmental protection at all levels. To improve the system of regulation in the field of nature management and environmental protection on the basis of market approaches, as well as to coordinate the activities of central and local executive bodies, local governments, public organizations to address environmental security of Ukraine.

It is necessary to strengthen the interaction of local authorities and public organizations at the local level. Community initiative has great potential, which is used inefficiently, mostly sporadically. Despite the restrained attitude of government institutions to public organizations, their influence on the formation and implementation of modern environmental policy is significant. Public organizations and citizens need to make more active proposals to improve the current legislation, conduct mass environmental and educational campaigns and, if necessary, independent environmental expertise. Local environmental policy should be aimed at more active involvement of public organizations in solving specific environmental, socio-economic problems. This will contribute to both political and socio-economic stabilization of society.

Local governments must play a crucial role in the development and implementation of environmental policy of megacities. They should determine the strategic directions of sustainable development of large cities with optimal use of natural resources in terms of environmental protection. Concepts of environmental policy, programs of ecological rehabilitation of urban areas, specific mechanisms for environmental protection and restoration of resources, etc. must be approved by the relevant councils. A change in attitudes towards environmental protection depends on the activities of local authorities, the transition from socio-economic plans

and programs to sustainable development programs. Nature protection, restoration of resources, careful attitude to the environment are the determining factors in the development of a large city.

Given the scientific and practical significance of the environmental problem in the context of economic transformations in the neo-industrial era, it is considered appropriate to continue the search for effective mechanisms for environmental education at the level of individual states and large areas associated with common environmental problems. Our further scientific research will be devoted to the methodological substantiation of a fundamentally new scientific term state regulation by sustainable development, the disclosure of its essence, the study of features and mechanisms of implementation.

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