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## **GREEN ECONOMY AS A TREND FOR ENVIRONMENTAL SUSTAINABLE CITY DEVELOPMENT: PROBLEMS AND SOLUTIONS**

**Abstract.** The article discusses environmental problems in the context of the Concept of Sustainable Development. It was considered discussions on the conceptualization of the “green economy” presented in the United Nations Environment Program. The author of the article, relying on the green economy strategy, believes that one of the key tasks of ecology is the development of a green urban infrastructure. The article substantiates the position that the greening of landscapes in urban space is one of the factors of sustainable environmental development. According to the author, in order to achieve the goal of sustainable development and growth, it is necessary to use positive international experience in national strategies for a green economy.

**Keywords:** Ecology, Green Economy, City Greening, Sustainable Development.

### *Introduction*

The ecological development of cities is one of the goals of sustainable development. The strategies of nation states in the field of sustainable development cannot be implemented outside of sustainable urban development programs. The ecology of cities is carried out in line with the green economy, which is one of the important factors in the promotion of green innovations and green technologies.

### *Methodology*

The article uses a comparative analysis of the concepts of sustainable environmental development of individual cities, as well as a discourse analysis of ideas presented in the UN Environmental Protection Program, published in A guidebook to the Green Economy.

### *Main part*

The ecological problems of cities are one of the most important topics in the life world of this or that urban population. There are environmental problems of a universal and local nature. Its life structure depends on the solution of environmental problems in the city.

The index of ecological well-being of cities is calculated from a variety of indicators based on the collection of empirical data obtained in the course of ecological expertise. Each city has its own environmental development concept that meets the overall strategic objectives of the Sustainable Development Concept. On the example of individual cities, it is possible to identify the ecological existence of the city and its further perspective.

Environmental problems in the modern world are becoming the most pressing, some of them require a comprehensive solution, others - preventive. Existing organizations and movements to solve environmental problems put forward many initiatives aimed at improving the ecological existence of cities. For example, in the megalopolis of Almaty, the ecological situation requires cardinal decisions at the legislative level. In connection with the existing Roadmap for the implementation of the Concept of Sustainable Development of Kazakhstan, strategy for the sustainable development of the city was developed and accepted for execution. The purpose of the Roadmap is to

comprehensively solve problems aimed at greening the city and creating an ecologically safe living environment.

Comprehensive solution should include the following tasks:

1. Implementation of scientific and applied research on environmental problems with the aim of developing practical recommendations for their implementation.

2. Determination of priorities in achieving the set goals.

3. Monitoring the implementation of the Roadmap on an ongoing basis.

4. Presentation of the results to the general public.

5. The solution of environmental problems of the city should be carried out in the consensus of state organizations, non-governmental organizations and representatives of public organizations.

6. Raising the ecological culture of the urban population through educational programs.

7. The ecological safety of the city depends on adequate decisions to improve the ecology, and the sooner they are adopted and implemented, the sooner we will see positive results.

There are many environmental problems in Almaty, among them the most urgent:

- air pollution;

- spontaneous garbage dumps;

- low ecological culture;

- natural disasters.

The solution to these problems is associated with the development of complex problems and their solutions.

One of the trends in the environmental development of the city of Almaty is the implementation of the “green economy” concept. The work is expanding in this direction.

The Green Economy Department was established in Almaty. Green economy in the Concept of sustainable development of Kazakhstan is one of the key factors for further development. Let us turn to the clarification of this direction and concept.

For the first time, “green economy” as a concept of a new direction in the economy, which was to become one of the basic in environmental development, was announced in 1989 by representatives of the ecology of the economy. But this concept required a clearer definition, in connection with which the scientists who introduced this concept, among them – Davis Pearce, E. Barbier, A. Markandya, make adjustments in 1994 to the report “Plan 2: Greening the World Economy”, “Plan 3: Measuring the effectiveness of sustainable development”.

These three reports begin the synthesis of economics and ecology on global problems: global climate change, depletion of water and other resources, depletion of the ozone layer, etc. [A Guidebook to the Green Economy].

The year 2008, known in history as the year of the global financial crisis, revolutionized the interest in the green economy in academic and political circles of the world community.

There were concepts that found a way out of the economic recession, they proposed the so-called “green stimulus packages” to get the economy out of a deep crisis.

Initiatives in this direction were supported by UNEP – United Nations Environment Program – which became the reason for the development of the concept of world

environmental policy. The well-known project called the “New Global Green Deal” has been proposed as an effective strategy for overcoming the financial crisis through measures necessary for the sustainable environmental development of countries. The program was about financial injections into the green economy, aimed at getting the economy out of recession; way out of poverty; reduction of carbon emissions, restoration of ecological systems [A Guidebook to the Green Economy].

Since 2009, the green economy, or “greening” the economy, has become one of the key trends in world politics. The conceptualization of the “green economy” is being supplemented, and today this term is also defined in this version: “green economy is an economy that focuses” on the use of opportunities for the simultaneous promotion of economic and environmental goals [A Guidebook to the Green Economy].

This document notes that despite the advancement of ideas and directions for green economy, more proactive implementation of mechanisms for modeling green economy is still required. Among the mechanisms are indicated: development and operation of legal framework for the regulation of economic and environmental relations, introduction of programs of social and economic development in their connection to environmental problems [A Guidebook to the Green Economy]. Defining the “green economy” as “an economy that leads to increased human well-being and social justice by reducing and minimizing environmental risks and environmental scarcity” [A Guidebook to the Green Economy].

UNEP policy documents provide practical recommendations for solving environmental problems in their short and long term. Particular attention is paid in this program to national strategies for green economies. A guidebook to the Green Economy provides a comparative experience of national green economy strategies in selected countries: Rwanda, Korea, Brazil, India, Australia and others.

Based on the comparative experience of green economy strategies, the following conclusions can be drawn:

1. All national green economy strategies contain universal content aimed at sustainable development;
2. National strategies contain their own path to a green economy, consistent with the interests of national development and national security;
3. National strategies are aimed at environmental protection of their own interests, which should be correlated with the general interests of countries supporting the concept of sustainable development.

The definitions of “green economy”, which are available today in the circulation of scientific and applied research, show how this direction is expanding even within the boundaries of its conceptualization.

So, for example, there are 8 definitions of the concept of “green economy”, which are given in the projects of UNEP, UNCTAD, Danish 92 Group, etc. “Green economy is a concept that leads to welfare and social justice”, “Green economy is the main factor of sustainable development”, “Green economy leads to environmental-economic integrity, green economy is to advance environmental goals ...” [A Guidebook to the Green Economy].

For the scientific interpretation of the concept of “green economy”, the definition given by Danish 92 Group has a multidimensional meaning, in which its representatives note that the green economy is a dynamic, change-oriented process that quickly responds to economic and environmental problems [A Guidebook to the Green Economy].

Danish 92 Group, which emerged after the UN Conference on Environment and Development, which took place in 1992 in Rio de Janeiro, today is one of the authoritative forums for environmental development in the context of sustainable development.

In the Sustainable Development Goals (SDGs) adopted by the UN in 2015, the green economy should become the main mechanism for achieving the set objectives and the goals: “Goal 6: Clean Water and Sanitation; Goal 7: Affordable and Clean Energy, Goal 8: Decent Work and Economic Growth, Goal 11: Sustainable Cities and Human Settlements, Goal 12: Responsible Consumption and Production, Goal 13: Combat Climate Change, Goal 14: Conserve Marine Ecosystems, Goal 15: Preserving Ecosystems and Land” [Цели в области устойчивого развития].

To achieve Goal 11: ensuring openness, security, resilience and environmental sustainability of cities and settlements, it is necessary to solve many problems, which have become even more complicated in the context of the Covid-19 pandemic.

The UN Development Programme’s Human Development Report 2020 notes that sustainable development needs to be determined from an index of attitudes towards nature and environment, and the new era of human development should be associated with reducing the burden on the planet [Электронный ресурс].

The attitude towards nature index should become a marker of eco-culture in the city as well.

The ecological problems of the city and the ecological well-being of the city depend on many factors: territorial size, urban landscape, presence of green space, reservoirs, climate, water quality, air quality, etc. Programs for sustainable development of cities include one of the important tasks – greening. Greening the city is possible with a balanced economic policy of the city.

The green economy of the city is realized in the strategies of “green-blue” landscapes. Many cities around the world have programs for greening urban spaces by reclaiming and converting abandoned urban areas into gardens or parklands.

Comparative analysis of the greening of urban landscapes in many countries demonstrates the desire to achieve the goal of sustainable environmental development. Urban landscapes are being reconstructed very intensively, for example, in the cities of China, South Korea, Canada, the concept of constructing urban landscapes is popular – linear park zones that form the city space as a common, unified [Петрашень и др. 2018].

The sustainable development of city depends on the ecological design of its space. In recent decades, cities have been experiencing a tremendous pressure from the “construction boom”, which has a negative impact on the life of the city. Environmental pressure is often not taken into account in urban planning strategies, while it should be developed in the context of sustainable city development.

So, for example, the rehabilitation of the urban landscape after various buildings in the city should be associated with landscaping and creation of park zones.

The problem of greening is the primary task of greening the city. The “green deficit” in the city is not only a problem of urban aesthetics, it is a problem of the quality and longevity of citizens’ life. Excessive humidity, dry air, air pollution can be compensated by the creation of park areas.

Park and park art is one of the most ancient applied arts, intended not only for aesthetic enjoyment, but having a direct impact on human health and life.

The parks of the East and West are unique, their strategic design incorporates forms of thinking, ways of mastering reality, and, importantly, ecological culture. The first parks of Ancient China, India, Japan, Iran, Europe expressed culture and spirituality, as well as a moral attitude towards nature.

The park tradition in the XXI century expresses the mentality of the people. However, there are not only parks that have gone down in the history of civilizations, giving them classic names: Japanese park, Iranian (char-bag), English, French (regular), etc., but also modern parks. For example, a park in Austria – Gruner See, which embodied the idea of the integrity of the world, synergetics, a park of flowers – Ashikaga in Japan on 8 hectares of land, covered with wisteria flowers, in which it is always summer, Park Guell in Barcelona – a place where man and the Universe are united, the Highline Park in the USA, etc. [Борисова 2016].

Parks perform many functions: they create a balance of the air atmosphere, humidify dry air, and flavor the air. Greening the city is one of the areas of greening the urban landscape. In the context of sustainable ecological development of the city, the construction or creation of ecological parks is of great importance. How do classic city parks differ from ecological ones? The ecological park, being an integral part of the urban space, forms the ecological zone of the city, solving ecological problems [Мурзин 2019, сс. 60-66].

In Kazakhstan, the greening of urban spaces is also carried out in the context of a green economy, the concept of which was approved in 2013. A large number of initiatives for the transition to a green economy are being implemented, but not fully enough, as investments are required in the green economy of the city. In Almaty, one of the largest cities in Kazakhstan, the green economy is working, let's turn to the practical results. Greening takes a special place in this process, which corresponds to the global trends in the development of a green economy. So, for example, according to data for 2018, voiced by A. Kaldybekov, Deputy Head of the Green Economy Department of Almaty, more than 30 thousand trees and shrubs were planted, the area of planting flowers was increased, water protection zones and channels of the Esentai River are being reconstructed [Электронный ресурс].

To implement innovative projects in a green economy, it is necessary to use successful international experience in this direction. For example, South Korea's national green economy strategy – Low Carbon Green Growth – is successful, since 2% of GDP is spent on the development of green technologies: “green payment cards”, for example, on which you can pay for other services with accumulated bonuses for the purchase of ecological products [Электронный ресурс].

In Kazakhstan, according to the National Report on the Green Economy (2014-2016), results were achieved in the following areas: water saving, a Green Technologies Center was built (35 innovative projects aimed at resource conservation, a Smart Grid project, a solar power plant, etc.) [Электронный ресурс]. 2019-2020 were the most difficult years for the economic, social and cultural development of mankind. In the context of a pandemic, an even deeper understanding has come to greening the space in which a person lives.

Thus, the development of urban ecology is directly related to a green economy, since the economy in the 21st century must proceed from the understanding of the need to

maintain an ecological balance. It is known that the former economy was brown, since a high level of economic development was achieved at the cost of an ecological catastrophe, and the greening of all vital systems should be carried out in the green economy model.

### **Conclusion**

The transition to a green economy is a human-conscious strategy that already works as an inclusive model for human development.

An inclusive green economy, acting as an alternative to an economy aimed at the consumption of resources, leading to an ecological scarcity of resources, on the contrary, is designed to conserve resources, ensuring equal access to them, which can be considered promoting the concept of sustainable development [Калмыков 2017].

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### **Transliteration**

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## Түйін

### **Шакенов Д. Жасыл экономика қалалардың экологиялық тұрақты дамуының үрдісі ретінде: мәселелер мен шешімдер**

Мақалада тұрақты даму тұжырымдамасы аясында экологиялық мәселелер талқыланады. Біріккен Ұлттар Ұйымының Қоршаған ортаны қорғау бағдарламасында ұсынылған «жасыл экономиканың» тұжырымдамалау бойынша талқылаулар қарастырылған. Мақала авторы жасыл экономика стратегиясына сүйене отырып, экологияның маңызды міндеттерінің бірі жасыл қала инфрақұрылымын дамыту деп санайды. Мақалада қалалық кеңістіктегі ландшафттарды көгалдандыру тұрақты экологиялық даму факторларының бірі болып табылады деген ұстанымға негізделген. Автордың пікірінше, тұрақты даму және өсу мақсатына жету үшін жасыл экономика бойынша ұлттық стратегияларда оң халықаралық тәжірибені пайдалану қажет.

**Түйін сөздер:** экология, жасыл экономика, қаланы көгалдандыру, тұрақты даму.

## Резюме

### **Шакенов Д. Зеленая экономика как тренд экологического устойчивого развития городов: проблемы и решения**

В статье рассматриваются проблемы экологии в контексте Концепции Устойчивого развития. Рассмотрены дискуссии по концептуализации «зелёной экономики», представленные в Программе ООН по Охране окружающей среды. Автор статьи, опираясь на стратегии зелёной экономики, считает, что одной из ключевых задач экологии является развитие зелёной городской инфраструктуры. В статье обосновывается положение о том, что экологизация ландшафтов в городском пространстве является одним из факторов устойчивого экологического развития. По мнению автора, для достижения цели устойчивого развития и устойчивого роста, необходимо использование позитивного международного опыта в национальных стратегиях зелёной экономики.

**Ключевые слова:** экология, зеленая экономика, экологизация города, устойчивое развитие.