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ENVIRONMENTAL SUSTAINABILITY OF ECONOMIC GROWTH

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Abstract: This article examines the impact of economic growth on the ecological balance and analyzes the possibilities of solving this problem based on the principles of sustainable development. In the first section, the concepts of economic growth and ecological stability and their interrelation and contrasts are highlighted. The following sections highlight issues such as climate change, resource depletion, industrial pollution and analyze the role of green economy, renewable energy and public policy in these issues.

Keywords: Economic growth, environmental sustainability, green economy, climate change, management of natural resources, renewable energy, ecological balance, state policy, sustainable development, environmental protection, energy efficiency, technological innovations, global environmental security, greenhouse gases, industrial pollution.

Абстрактный: В данной статье рассматривается влияние экономического роста на экологический баланс и анализируются возможности решения этой проблемы на основе принципов устойчивого развития. В первом разделе выделены понятия экономического роста и экологической устойчивости, их взаимосвязь и контрасты. В следующих разделах освещаются такие проблемы,как изменение климата, истощение ресурсов и промышленное загрязнение, а также анализируется роль «зеленой» экономики, возобновляемых источников энергии и государственной политики в этих вопросах.

Ключевые слова: Экономический рост, екологическая устойчивость, зеленая экономика, изменение климата, управление природными ресурсами, возобновляемая энергия, екологический баланс, государственная политика, устойчивое развитие, защита окружающей среды, енергоэффективность, технологические инновации, глобальная экологическая безопасность, парниковые газы, промышленное загрязнение

In the 21st century, the issue of economic development has become a priority for most countries. However, the process of global economic growth often causes problems such as environmental damage, depletion of natural resources and disruption of the ecological balance. In particular, factors such as accelerated industrialization, urbanization and increased energy consumption are leading to climate change and endangering the future of humanity. Therefore, the combination of economic growth with environmental sustainability has become one of the most pressing issues in modern economic theory.

Ecological sustainability is necessary not only to protect the environment, but also to ensure the sustainability of long-term economic development. In this regard, state policy, the activities of business entities and the formation of environmental awareness of society are of great importance. Also, technological development of the economy and innovations, in particular the possibilities of

using renewable energy sources, offer ways to combine economic growth and environmental sustainability.

This article analyzes the relationship between economic growth and environmental sustainability, the main problems and solutions of this process. In particular, the principles of the green economy, the development of clean energy technologies, government policies and examples of international experience will be considered, considering sustainable development models. In this way, the aim is to create a clear picture of the directions necessary for economic development to be environmentally safe and effective.

The importance of the content is not only for the theoretical study of economics, but also for the development of practical measures. This study aims to introduce new approaches to economic theory and develop an economic model that supports environmental sustainability. There is a wide range of literature to cover the topic of environmental sustainability of economic growth, which covers research in the fields of economic theory, environmental policy, green technologies and sustainable development.

The literature can be divided into the following main groups:

This group includes classical and modern books on economic theory. This literature explains the basic principles of economic growth, environmental problems and their impact on economic indicators.

The work "Economics" by Paul Samuelson and William Nordhaus covers the principles of economic growth and resource use.

The work of authors such as Herman Daly and Robert Costanza on sustainable development is an important source for studying the theoretical foundations of ecological economics.

Empirical research and international experience: Empirical research is related to the study of the environmental impact of economic growth in different countries. Reports and statistical materials of international organizations (UN, World Bank, International Monetary Fund) help to study these issues in more depth. Reports within the framework of the UN Sustainable Development Goals (SDGs). Publications of the World Bank on "Green Growth". Reports on the development of environmental taxes and green technologies issued by the OECD.

There are a number of scientific articles and studies on the issues of economic growth and environmental sustainability at the country level. Renewable energy policies of Scandinavian countries. The experience of industrial development and environmental problems of China and India. Government strategies for implementing the principles of "green economy" in Uzbekistan.

Scientific articles on green technologies, renewable energy sources and energy efficiency help to understand the technological approaches to this topic.

Articles published in the journal "Renewable and Sustainable Energy Reviews".

The journal Nature Climate Change and its studies on climate change and economic impacts.

Proceedings of international conferences on energy efficiency and green economy.

The literature helps to shed light on the theoretical and practical aspects of economic development and ensuring ecological balance. Relying on scientific work in this area is important not only for

understanding the problem, but also for developing solutions. Among the sources, literature on public policy, international experience and technological innovations is of particular importance.

Experience of Scandinavian countries in the field of environmental sustainability and economic growth: Scandinavian countries (Sweden, Norway, Denmark, Finland and Iceland) have a successful experience in combining environmental sustainability and economic growth. They have implemented environmental policies, green technologies and strategies aimed at sustainable development, while maintaining economic efficiency.

Key measures and policies

Scandinavian countries pay special attention to the use of renewable energy sources in the energy sector. In Sweden, more than 56% of energy is obtained from renewable sources (mainly hydropower and biomass). Iceland produces 100% of its electricity from renewable energy sources (hydro and geothermal energy). Sweden introduced a carbon tax in 1991, which is currently one of the highest in the world ($137 per ton of carbon dioxide). This has significantly reduced emissions. The proceeds from the tax are used to develop green technologies and build sustainable infrastructure. Denmark is a leader in supporting electric vehicles. By creating a special infrastructure for walking and cycling, it has reduced transport emissions by 30%. Norway provides state subsidies and tax breaks to encourage the purchase of electric cars. Currently, 80% of the cars in the country are electric vehicles. The recycling rate in Norway and Denmark exceeds 90%. Waste-to-energy technologies are widely used in energy production. In Finland, large-scale development is underway in the field of organic agriculture. This plays an important role in ensuring food security and environmental sustainability.

Indicator	Sweden	Norway	Denmark	Finland	Iceland
GDP growth rate (%)	2.3%	1.9%	2.1%	1.8%	3.5%
Carbon emissions reduction(%)	25% (1990-2023)	20% (1990-2023)	30% (1990-2023)	18% (1990-2023)	35% (1990-2023)
Renewable energy share (%)	56%	98%	47%	43%	100%
Share of electric vehicles (%)	25%	80%	12%	10%	15%
Waste recycling (%)	90%	95%	87%	80%	85%

Carbon tax (USD/ton)	$137	$78	$70	$55	$0 Carbon-free energy sources

In Sweden, carbon dioxide emissions decreased by 25% between 1990 and 2023. In Norway, emissions from the energy sector have decreased significantly, and electricity generation has reached almost zero. Sweden and Norway have managed to reduce emissions while maintaining stable GDP growth. This is evidence that they have successfully made the transition to a green economy and innovation.

In Denmark, energy efficiency has increased, which has reduced the costs of companies using these resources and increased their competitiveness.

In the Scandinavian countries, thousands of new jobs have been created in the fields of green technologies and sustainable infrastructure. This has not only helped to reduce the environmental impact, but also increased the economic well-being of the population. Thanks to sustainable energy policies, these countries have been able to reduce the negative effects of climate change. For example, long-term strategies for the use of natural resources have been developed by switching to hydropower and other renewable sources.

The Scandinavian countries are considered a model for combining environmental sustainability and economic growth. Their experience provides the following lessons: When investing in renewable energy and green technologies, environmental sustainability can be achieved without reducing economic growth. Carbon taxes and other environmental policy instruments are effective in reducing emissions. Sustainable development requires joint efforts of public policy, the private sector and society. The experience of the Scandinavian countries shows an effective model for combining economic growth and environmental sustainability. These countries have been able to combine economic development with reducing environmental damage by transitioning to a green economy, using renewable energy sources and developing innovative technologies.

The targeted orientation of public policy towards carbon taxes, renewable energy and waste recycling systems has yielded significant economic and environmental benefits. Economic growth can be achieved not only through the consumption of natural resources, but also through technologies and green investments. Technological innovation and international cooperation are the foundations of environmental sustainability.

The list of used literature

1. Azizov, U. A. (2021). Iqtisodiyotda barqaror rivojlanish: nazariya va amaliyot. Toshkent: O‘zbekiston Milliy universiteti nashriyoti.
2. Stern N.(2006).The Economics of Climate Change.
3. Daniya statistikasi. Daniya yashil iqtisodiyoti: siyosat va natijalar 2023.
4. Karimov, S. (2023). O‘zbekistonning yashil iqtisodiyotga o‘tishdagi dastlabki natijalari va global tajribadan saboqlar. Iqtisodiyot va innovatsiyalar ilmiy jurnali, 2(4), 112-120.
5. Gazeta.uz: Qayta tiklanadigan energiya: imkoniyatlar va amaliyot.
6. Abdurahmonov, Q. X. (2020). Yashil iqtisodiyot va ekologik barqarorlik: O‘zbekistonning istiqbollari. Toshkent: Iqtisodiyot va moliya nashriyoti.

7. Akhmedov, R. (2021). O‘zbekistonda iqtisodiy islohotlarning ekologik barqarorlikka ta’siri. Yangi O‘zbekiston iqtisodiyoti jurnali, 1(1), 45-53.
8. World Bank (Jahon banki). World Development Indicators: Environmental and Economic Sustainability Reports.