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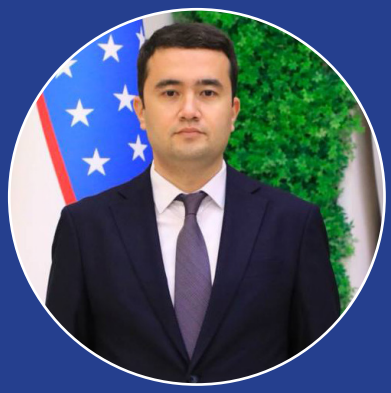

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SOCIO-ECONOMIC MECHANISMS FOR ASSESSING THE IMPACT OF GREEN ECONOMY DEVELOPMENT ON PRODUCTION RESOURCES

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Abstract: This article analyzes the impact of green economy development on production resources and the socio-economic mechanisms used to assess this process. In particular, it explores how ecological approaches affect production resources such as labor, capital, and land, as well as the role of renewable energy and technology, and the socio-economic aspects of environmental policies. The article also proposes assessment indicators and analytical methods based on advanced international experience.

Key words: green economy, production resources, ecological efficiency, socio-economic mechanism, renewable energy, environmental innovation.

INTRODUCTION

In today's era of globalization and industrial development, humanity is facing serious environmental challenges. The increase in harmful gas emissions into the atmosphere, the contamination of land resources, climate change, the loss of biodiversity, and the rapid depletion of natural resources compel us to pay close attention to issues of environmental security. In this context, the traditional economic model—based on the principle of "take – make – use – dispose"—has proven unsustainable. This situation has created an urgent need to shape the economy in a new direction that is both environmentally sustainable and socially equitable.

It is precisely under these circumstances that the concept of a "green economy" emerged. This approach is aimed at organizing production and consumption based on environmental standards, improving the efficiency of resource use, and ensuring opportunities for sustainable development for future generations. The green economy not only seeks to prevent environmental problems but also serves as an important driver for transitioning to a new stage of economic development, widely introducing modern technologies, creating new jobs, and improving public welfare.

From this perspective, the green economy has a significant impact on production resources—labor, land, capital, and entrepreneurial capacity. The approach to utilizing production resources changes, their evaluation criteria are updated, and socio-economic mechanisms are restructured. For example, capital resources are redirected toward environmentally friendly technologies, labor skills are adapted to green professions, and land resources become closely integrated with environmental monitoring and protection systems.

This article provides a comprehensive analysis of the impact of the green economy on production resources. In particular, it examines the socio-economic mechanisms and evaluation indicators used to assess this process, the experience of foreign countries, and the measures being implemented in Uzbekistan in this regard. The main objective of the article is to systematically assess the impact of the green economy on production resources, identify existing opportunities and challenges, and develop scientifically grounded recommendations.

REVIEW OF LITERATURE ON THE SUBJECT

The green economy and its impact on production resources is considered one of the most pressing scientific areas on today's global agenda. In this field, numerous theoretical, methodological, and practical studies have been conducted both worldwide and in Uzbekistan, serving as essential sources for establishing the scientific foundations of this article.

The United Nations Environment Programme (UNEP, 2011) laid the groundwork for the concept of the green economy through its report Towards a Green Economy. The report analyzes the intrinsic link between economic growth and environmental sustainability, substantiating that sustainable development can be achieved through the rational use of resources. It also highlights the advantages of applying an ecological approach to production resources such as land, water, and labor.

The OECD's Green Growth Indicators (2021) proposes a system of indicators for assessing the green economy. These metrics enable the analysis of factors such as energy efficiency in production, waste volume, and the share of environmental investments. Using these indicators, the impact of the green economy on production resources can be evaluated in practical terms.

Studies by the World Bank (2020) and the International Labour Organization (ILO, 2018) emphasize the social dimensions of the green economy. In particular, they examine the creation of new jobs, the emergence of new skill requirements for labor resources, as well as issues of social protection and inclusivity. These factors have a direct impact on the quality of labor resources and the mechanisms for their utilization.

Jeffrey Sachs (2015), in his work The Age of Sustainable Development, develops the scientific foundations of sustainable development. He presents a global strategic model for the green economy and resource use, integrating social justice, environmental security, and economic efficiency.

Uzbekistan's Green Economy Strategy for 2020–2030 is the key normative and legal framework in this area, prioritizing energy efficiency, the use of renewable energy sources, and the transition to environmentally friendly production technologies. The strategy promotes concepts aimed at environmentally optimizing the use of production resources.

In their 2022 article, Egamberdiyev N.M. and Mamadaliev B.I. analyze the economic mechanisms of the green economy in improving resource use efficiency in Uzbekistan. The authors propose increasing environmental investments, introducing a resource certification system, and implementing zero-waste technologies to enhance production efficiency.

Fayzullayev A.Kh. (2023) addresses the theoretical foundations of the green economy, developing mechanisms for integrating environmental innovations with production resources. He substantiates the need to redirect labor and capital resources in line with environmental requirements.

Additionally, the compilation of environmental and economic indicators presented by the Statistics Agency (2024) serves as an important source of information for practical assessment.

RESEARCH METHODOLOGY

The study utilized data from the State Committee of the Republic of Uzbekistan on Statistics, reports of the United Nations and the World Bank, as well as scholarly articles and sources on international best practices in the field. The collected data were processed using economic-statistical methods, comparative analysis, and SWOT analysis, and the impact of the green economy on production resources was assessed based on a system of indicators.

ANALYSIS AND RESULTS

Assessing the impact of green economy development on production resources is one of the pressing areas on the current global economic and environmental agenda. Production resources include land, labor, capital, and entrepreneurial capacity. Land resources encompass natural wealth, ecological potential, and their long-term preservation. Labor resources are determined by human capital, health, education, and skills. Capital resources include technologies, buildings, equipment, and other physical and technical infrastructure. Entrepreneurial resources are based on managerial capacity, innovative thinking, and the ability to leverage new economic opportunities.

The core principles of the green economy aim to ensure the rational and efficient use of resources, promote energy efficiency, expand the use of renewable energy sources, enhance environmental security, and guarantee social justice and sustainability. This approach directly affects production resources. In the labor market, new professions such as environmental engineers and biotechnology specialists emerge, contributing to the qualitative renewal of human capital. In terms of capital resources, the volume of investments directed

toward environmentally friendly technologies increases. For land resources, ecological certification systems are introduced, and measures to prevent land degradation are strengthened.

To effectively assess the impact of the green economy on production resources, it is necessary to identify the level of resource utilization, ecological and economic outcomes, and the indicators required for shaping public policy. Socio-economic mechanisms play a critical role in this process. These mechanisms comprise a set of economic and social tools that stimulate green development. They include tax incentives for environmentally friendly technologies, subsidies for renewable energy sources, grants and preferential loans for green startups, and the strengthening of the regulatory framework aimed at implementing green standards.

A variety of analytical models can be applied for evaluation. SWOT analysis helps identify strengths and weaknesses while assessing opportunities and threats. The input–output model allows for a systematic analysis of resource inputs and outputs. KPI (key performance indicator) systems provide the ability to measure performance. International experience shows that subsidizing green technologies, imposing taxes on environmentally harmful emissions, and strengthening environmental education systems in countries such as Germany, South Korea, and China have yielded effective results.

In Uzbekistan, the Green Economy Strategy for 2020–2030 has been adopted, with ongoing efforts to develop solar and wind energy projects and implement state programs aimed at efficient resource use. In the future, introducing a green certification system for producers, establishing a center for environmental innovations, and widely applying green technologies in the social sectors could help reinforce the balance between economic efficiency and environmental sustainability. Thus, assessing the impact of the green economy on production resources through socio-economic mechanisms ensures not only economic growth but also sustainable development for future generations.

CONCLUSIONS AND SUGGESTIONS

The green economy not only addresses environmental issues but also fosters qualitatively new approaches to the use of production resources, enhancing their efficiency, strengthening economic stability, and improving social well-being. This approach ensures the development of resources not only in quantitative but also in qualitative terms, facilitates the broad introduction of innovative technologies, promotes the emergence of new professions in the labor market, and enables the creation of environmentally friendly production infrastructure within capital resources.

Proper and comprehensive assessment of the impact on resources ensures the effective functioning of socio-economic mechanisms, allowing for the integration of state policy, business strategies, and civil society initiatives into a unified system. In Uzbekistan, this process becomes even more effective when international experience is adapted to local economic, environmental, and social conditions. Furthermore, improving the system of indicators, implementing real-time monitoring, and making decisions based on assessment models allow for a deeper study of the green economy's impact on production resources and the strengthening of strategic management.

As a result, for Uzbekistan, scientific analyses in this field, combined with an indicator system and mechanisms developed on the basis of advanced international experience, play a decisive role in shaping a long-term development model that jointly ensures sustainable economic growth, environmental security, and social justice.

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