

**STRATEGIC DIRECTIONS OF TRANSITION TO A GREEN ECONOMY AND
FOUNDATIONS OF SUSTAINABLE DEVELOPMENT IN UZBEKISTAN****Rakhimova Sevinch Chori kizi**

Student of KarSU, Faculty of Foreign Languages

Ermuminov Elbek Erkin ugli

KarSU, student of the Faculty of Economics

Annotation: This article provides a comprehensive analysis of the role of environmental protection and the green economy in national development. The theoretical foundations of the green economy, its role in mitigating environmental problems, and mechanisms for the efficient use of resources are highlighted based on scientific sources. The Green Economy Strategy of Uzbekistan for 2019-2030, renewable energy potential, and natural capital management practices were thoroughly studied. The study analyzes the current state of the country and its place in international rankings based on indicator-based assessment methods. The article proposes existing problems, opportunities, and strategic directions for the future based on scientific conclusions.

Keywords: green economy, environmental protection, natural capital, renewable energy, environmental sustainability, energy efficiency, green growth

Introduction

The transition to a green economy is not only a set of technical measures aimed at environmental protection, but also a process of reorganizing the economy around the principles of resource efficiency, low-carbon development, and social inclusion. According to the definition adopted by UNEP and international experts, the green economy is a "low-carbon, resource-efficient, and socially inclusive" system; in it, job creation and income growth are achieved through investment, but this growth reduces the burden on the environment. When considering the theoretical foundations, works such as "Blueprint for a Green Economy" systematically proposed for the first time the necessity of including environmental value in economic calculations. This approach clearly demonstrates the value of natural capital and encourages policymakers to mitigate environmental damage through economic instruments - taxes, subsidies, and market mechanisms. Therefore, it is important to combine economic and environmental indicators when forming a green policy at the national level. Uzbekistan's "green" transition requires adapting global concepts to the national context. The "Strategy for the Transition of the Republic of Uzbekistan to a "Green" Economy for 2019-2030," approved by Resolution No. PP-4477 of October 4, 2019, defines the strategic directions for the country: increasing energy efficiency, developing renewable energy sources, adapting to climate change, and efficient use of natural resources. This document aims to link national policy with practical measures and develop mechanisms for attracting green investments. In practice, comprehensive measures based on public-private partnerships - "Green Space," solar and wind energy projects, waste recycling, and water-saving technologies - are rapidly developing in Uzbekistan. However, international ratings and indices show that the country is still far behind the level of world leadership: assessments such as the Green Growth Index recorded lower indicators for

Uzbekistan in terms of efficient resource use and "green opportunities," which indicates the need to strengthen national policy through deeper financing and technological modernization. It is important to harmonize scientific and political content: when transitioning to a green economy, economic incentives (green bonds, grants), improvement of the regulatory framework, and regional strategies should be implemented simultaneously. At the same time, when adapting the green growth model to national conditions, mechanisms for social protection and poverty reduction should be prioritized - because during the transition period, certain sectors and population groups may be negatively affected by the change. Based on international experience, inclusive policies (professional retraining, targeted subsidies, collective projects) make economic changes socially justified. In conclusion, the implementation of the "Green Economy" at the national level is a strategic task that combines economic efficiency, environmental security, and social justice. For Uzbekistan, this path will go through: strengthening the measurement system based on international standards and indices, updating the legal framework, introducing green financing mechanisms, and planning taking into account regional conditions. On this path, scientific research, international cooperation, and local innovations are inextricably linked, leading the country towards sustainable and low-carbon development.

Research Methodology

The methodology of this study is aimed at a systematic study of the process of Uzbekistan's transition to a "green economy" and is formed through the harmonious application of several scientific approaches. In the study, first of all, existing scientific sources, government decisions, reports of international organizations, and theoretical foundations presented in previous studies were studied. This method helped to determine the conceptual framework of the research, to clarify the content, purpose, and basic principles of the concept of "green economy." The main approach to the research relies on the methods of observation, comparison, system analysis, and analytical study. First of all, open statistical data were collected on the practical results of environmental projects implemented in Uzbekistan in recent years, renewable energy programs, and initiatives such as "Green Space." With the help of these data, the rates of formation of the "green economy" in the country were assessed through general indicators. At the next stage, the method of comparing international experience was used, and the state of Uzbekistan was compared with the green growth indices of other countries - in particular, the countries of Europe and Asia. This comparison made it possible to identify the strengths and weaknesses of the country, to correctly assess the existing results and problems. The study used the Green Growth Index, UN-developed indicators, as well as global ratings that measure economic and environmental sustainability as the main source. That is, economic, environmental, and social factors were considered together, and their interaction was studied. This method made it possible to assess the process of Uzbekistan's transition to a green economy not only from an ecological point of view, but also in connection with economic growth, social well-being, employment, investment climate, and innovation. The "Green Economy Transition Strategy" of the Republic of Uzbekistan, Presidential Decrees, ministerial reports, and analytical data published by international institutions were analyzed, and the strategic goals and the work being carried out on them were studied. This approach made it possible to assess the compliance of existing political documents and scientific views with practice. The methods used in the study served to form the results objectively, scientifically based, and in accordance with the real situation. Through analytical analysis, existing statistical indicators, international ratings, expert opinions, and the general content of government documents were combined, and the current

state of development of the green economy in Uzbekistan, existing opportunities, problems, and prospects were identified. In general, such a structure of the research methodology ensured a comprehensive approach to the topic and contributed to the formation of results in a deep and substantiated form.

Analysis of the literature

Although the scientific literature on the concept of a green economy is diverse in content, their generalizing aspect is the need to harmonize economic development with environmental sustainability. Analysis of scientific sources shows that the idea of a green economy was formed primarily based on the concepts of an ecological economy and sustainable development. The work "Blueprint for a Green Economy," prepared by David Pearce, Anil Markandya, and Edward Barbier, is one of the first fundamental works in this direction, in which the concept of giving economic value to natural resources and reducing environmental damage through financial mechanisms is substantiated. This source was subsequently used as a methodological basis in many scientific works. In the 2011 report "Towards a Green Economy," presented by the United Nations Environment Programme - UNEP, a definition of the green economy corresponding to international standards is given. It presents a conceptual approach that "a green economy improves human well-being, ensures social equality, and reduces environmental risks." This definition currently forms the basis of most national strategies, including Uzbekistan's "Green Economy Transition Strategy." Scientific research conducted in European and Asian countries is largely related to green growth indicators, energy efficiency, and the development of the renewable energy market. The "Green Growth Index" methodology, developed by Satbyul Kim and partners, assesses sustainable development indicators in four areas: efficient use of resources, protection of natural capital, green economic opportunities, and social inclusion. The data of this index clearly show the position of Uzbekistan in international rankings, its competitiveness. In the scientific literature prepared on Uzbekistan, more attention is paid to the country's political decisions, reforms in the energy sector, the effectiveness of such projects as "Green Space," renewable energy infrastructure, and environmental security. In the textbook "Green Economy" by A.V. Vakhobov and Sh.Kh. Khajibakiev, diversification of the economy, increasing energy efficiency, and the widespread use of environmental innovations are presented as the main directions for Uzbekistan. The research notes that while the country's resource utilization efficiency is still low, its high social inclusion rates create an important foundation for green growth. Reports prepared by international sources, in particular the World Bank and the International Monetary Fund, emphasize that the transition to a green economy is not only an environmental problem but also an economic opportunity. According to them, green technologies, low-carbon energy, waste recycling, and environmentally friendly production create new jobs and increase economic stability. Analysis of domestic and foreign literature also shows that the success of the green economy directly depends on the regulatory framework, financial mechanisms, international cooperation, and environmental literacy of the population. Although research in Uzbekistan has shown positive results of the current policy, it notes that opportunities and problems vary by region. In general, the analysis of the literature shows that the theoretical foundations for the development of a green economy are sufficiently formed, but it is necessary to deepen practical mechanisms, expand investments, and accelerate technological modernization.

Analysis and Results

Analysis of Uzbekistan's transition to a "green economy" shows that in recent years, the policy aimed at harmonizing economic development with environmental factors has been gradually strengthened. The analysis was conducted in three main areas: 1) Efficiency of resource use; 2) Renewable energy and environmental innovations; 3) The level of social and institutional preparedness. The overall situation in these areas was assessed based on available data, domestic and international sources, statistical indicators, and the results of practical programs. The results obtained in the first area show that Uzbekistan still lags behind a number of developed countries in terms of efficient resource use indicators. The main reason for this is the high energy intensity of industrial sectors, low efficiency in the use of water resources, and obsolescence of technologies. However, in recent years, positive changes have begun to be observed as a result of the introduction of drip irrigation, water-saving irrigation systems, and energy-saving devices in industry. In particular, pilot projects on water efficiency in agriculture have had a direct impact on increasing yields and reducing water consumption. Analysis of the second area - renewable energy - has shown significant progress in the industry. In particular, solar and wind energy projects are expanding, which, along with strengthening the country's energy security, contributes to reducing carbon emissions. As a result of attracting foreign investors, large photovoltaic power plants have been built, and modernization processes are increasing economic efficiency. At the same time, the introduction of energy-saving technologies into industry reduces the environmental burden on production capacities. However, the results show that the share of renewable energy in the overall energy system is not yet sufficiently high. To significantly increase this share in the coming years, it is necessary to consistently continue strategic projects. Results on environmental innovations indicate the intensive introduction of environmentally friendly technologies. The construction of new plants in the field of waste processing, the development of a selective collection system, and the introduction of technologies for obtaining energy from waste contribute to environmental sustainability. This process not only improves the environmental situation, but also contributes to increased economic activity through the creation of new jobs. The third direction - social and institutional factors - serves as an important criterion for assessing the overall readiness of the country. The results show that environmental literacy in Uzbekistan is gradually increasing. National programs such as "Yashil Makon" play a large role in expanding the participation of the population and forming the ecological culture of citizens. The intensity of environmental projects, volunteer programs, and green initiatives is especially noticeable among young people. However, in this regard, it is still necessary to strengthen the mechanisms of systematic training, the widespread introduction of environmental competencies into educational programs. At the institutional level, although the adoption of strategies and decisions is sufficient, it is important to improve their implementation, strengthen monitoring and evaluation mechanisms. According to the results, the effectiveness of some projects is not the same across regions - this is due to differences in resources, infrastructure, and local capabilities. Overall, the analysis shows that Uzbekistan is taking significant steps towards transitioning to a green economy. Positive results are being achieved in renewable energy, waste recycling, environmental initiatives, and the efficient use of resources. However, based on the existing potential, it is possible to further accelerate these rates by expanding economic and technological opportunities, raising the ecological culture of the population, and further strengthening the investment climate.

Conclusion

At the end of the article, it is emphasized that the green economy is not only a tool for environmental protection, but also a strategic element of economic competitiveness, social

inclusion, and long-term sustainable growth; this point of view is clearly expressed in UNEP's global recommendations. The fact that the success of this area at the national level depends on the integration of indicator-based monitoring and systemic policy is also confirmed by the Green Growth Index methodology developed by GGGI - that is, it is necessary to jointly develop four dimensions, such as efficient use of resources, protection of natural capital, green economic opportunities, and social inclusion. Uzbekistan's "Green Economy Transition Strategy" for 2019-2030 (PQ-4477) defined the country's political will and goals, but effective implementation of this strategy requires clear financing mechanisms, methods for calculating natural capital, and an indicator-based monitoring system. Lessons from international practice show that the green transition should be inclusive: it is necessary to harmonize economic growth with green investments and synchronize social protection mechanisms - these aspects are highlighted in the World Bank's recommendations. From a practical point of view, the conclusions are as follows: (1) pilot programs for assessing natural capital and monetizing services should be implemented at the national level; (2) develop financial instruments (green bonds, loan guarantees) and tax incentives to attract green investments; (3) Establish an indicator-based monitoring and open data system in accordance with GGGI and UNEP recommendations. Through these measures, Uzbekistan will not only strengthen environmental security, but also open new opportunities for economic diversification and sustainable social development.

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