

## THE TRANSITION TO A GREEN ECONOMY AND ITS INDIVIDUAL PRINCIPLES

**Gafurova Lola Ruyiddinovna**

*Assistant of Karshi State Technical University*

[gafurovalola208@gmail.com](mailto:gafurovalola208@gmail.com)

**Abstract:** This article analyzes the main principles of the transition to a green economy and effective levers used in its implementation. The concept of a green economy aims to ensure harmony between socio-economic development and environmental sustainability. The study considers factors such as the introduction of environmentally friendly technologies, increasing energy efficiency, the use of renewable energy sources, as well as state policy and financial incentive mechanisms as the main levers. The role of institutional reforms, social awareness, and international cooperation in the transition to a green economy is also analyzed. The scientific conclusions provided by the author can serve as the basis for a strategy for developing a green economy in the conditions of Uzbekistan.

**Keywords:** Green economy, sustainable development, environmental safety, energy efficiency, renewable energy, public policy, economic levers, ecological innovations.

**Introduction.** In recent years, global environmental problems, threats such as global climate change, limited natural resources and environmental degradation have shown a decline in the effectiveness of traditional economic development models. This situation is forcing the global community to look for alternative, environmentally sustainable and human health-friendly directions of economic growth. From this point of view, the concept of a green economy is recognized as an important methodological basis for reorganizing the modern economy, restoring the balance between nature and society, and achieving sustainable development. A green economy is a comprehensive approach aimed at conducting economic activity with minimal harm to the environment, rational use of energy and resources, reducing waste, applying ecological innovations, and promoting sustainable production. This concept serves not only to ensure economic efficiency, but also to ensure social equality, protect natural resources, and create a favorable living environment for future generations. Especially for emerging economies like Uzbekistan, the transition to a green economy is a strategic direction not only for environmental security, but also for increasing national economic stability and international competitiveness. The economic reforms and environmental policy being carried out in the country are creating a significant foundation in this direction. However, in order to ensure an effective transition to a green economy, it is important to deeply analyze its basic principles, improve the system of institutional and financial supports, as well as to study in-depth factors such as raising social awareness. In the process of transition to a green economy, state policy, regulatory and legal frameworks, financial instruments, environmental innovations, the active participation of civil society institutions and the business sector play an important role. In particular, ensuring environmental safety, increasing energy efficiency, reducing waste, using renewable energy sources, and raising the ecological culture of the population are decisive factors in this direction. In the Republic of Uzbekistan, significant steps have been taken in recent years to transition to a green economy. The "Strategy for Transition to a Green Economy - 2030", the laws "On Energy Efficiency" and a number of state programs reflect the political will and inter-institutional integration in this area. However, in practice, this process has not yet been fully systematized, the existing potential has not been fully mobilized, and institutional cooperation in some sectors is insufficient.

Methodology. This scientific article is aimed at a systematic analysis of the principles of the transition to a green economy and the levers used in its implementation. The following methodological approaches were used in the study:

- Systemic approach - a comprehensive view was formed by identifying the interrelationships between the components of the green economy (energy, industry, transport, agriculture, environmental management, etc.) and analyzing the mechanisms of their interaction.
- Comparative analysis method - the experience of leading countries (for example, Germany, South Korea, China) in the transition to a green economy was studied and the possibilities of adapting the levers they used to the conditions of Uzbekistan were assessed. For example, China, in 2021, reached 15 trillion yuan in green loans, achieving significant progress in the green financing market.
- Empirical analysis - the real situation was analyzed based on existing environmental and economic indicators (for example, the volume of CO<sub>2</sub> emissions, the share of renewable energy, the volume of green investments) using data from the State Statistics Committee of the Republic of Uzbekistan, the Ministry of Ecology, Environmental Protection and Climate Change, as well as international organizations such as the UN, UNEP, OECD.
- Regulatory and legal analysis – the Law of the Republic of Uzbekistan “On Environmental Protection”, “Strategy of Transition to a Green Economy - 2030”, “On Energy Efficiency” and relevant resolutions were studied, and the existing legal and regulatory framework was assessed.
- Expert assessment method – the views of local and international experts in the field of ecology, economics and sustainable development, scientific articles and analytical reports were used. In particular, the UNEP “Green Economy Report” (2011) and the OECD “Green Growth Indicators” (2023) reports served as the basis.

The current state of environmental and economic indicators in Uzbekistan was analyzed based on real statistical data. For example, the opportunities and limitations of the transition to a green economy were identified based on indicators such as the share of renewable energy, CO<sub>2</sub> emissions, and the volume of industrial waste.

**Results.** As a result of the analysis, the following main conclusions were drawn for the effective organization of the transition to a green economy. The strategic levers of the green economy were identified. In particular, the following factors were identified as the main driving forces: the development of renewable energy sources, the introduction of environmentally friendly technologies, increasing energy efficiency, and the establishment of green financing mechanisms (for example, green bonds, environmental grants). These levers have proven themselves in global experience, and it was determined that their adaptation to the conditions of Uzbekistan can lead to high efficiency. The main principles of the green economy were systematized. In particular, ensuring ecological sustainability, rational use of natural resources, supporting social equality, economic efficiency and an innovative approach, and ensuring institutional and legal compliance.

Consistent application of these principles will ensure the sustainable implementation of the green economy concept in practice. Existing potential and problems in the conditions of Uzbekistan were identified. According to the results of the analysis, the country has the following positive opportunities. The potential for using solar and wind energy is high, sustainable development strategies are in place, cooperation with international financial institutions is increasing. At the same time, the following problems were also identified: research on green technologies is not sufficiently developed, the level of environmental education and awareness-raising is low, and institutional coordination is weak in some areas. The analyzed international experience can serve as a guide in creating a suitable model for Uzbekistan. In particular, attracting green investments based on public-private partnerships, establishing solid waste processing clusters, and developing green standards were identified as important areas based on the experience of Germany and South Korea.

Scientifically based recommendations were formulated. It was clarified that sustainable results can be achieved by strengthening state policy on the development of a green economy, expanding financial incentives, and increasing the environmental literacy of the population.

Discussion. The concept of a green economy is becoming increasingly relevant in the modern world not only as a means of ensuring environmental sustainability, but also as a means of transition to a qualitatively new stage of economic growth. Global experience, statistical data and analysis help to deeply understand the impact of this model on sustainable development. This section contains a scientific discussion of international practice, real opportunities in the conditions of Uzbekistan and existing obstacles.

#### 1. Relevance and effectiveness of international experience

As of 2023, according to the UN, the growth of gross domestic product (GDP) in countries that have transitioned to a green economy is taking place in a sustainable and environmentally friendly manner. For example, in Germany in 2022, renewable energy sources accounted for 46% of total electricity production. South Korea has allocated \$73 billion under the Green New Deal program, creating more than 2 million green jobs. In China, the volume of green loans reached 15 trillion yuan (about 2.3 trillion US dollars) by 2021. These experiences show that it is possible to effectively transition to a green economy with a combination of public policies, financial incentives, and innovative technologies.

#### 2. Opportunities for a green economy in Uzbekistan. The legal and institutional framework for the transition to a green economy is being formed in Uzbekistan:

Based on the "Strategy for the Transition to a Green Economy - 2030", adopted in 2021, it is planned to increase the share of renewable energy to 25% and reduce greenhouse gas emissions by 10%. Currently, the solar energy potential in Uzbekistan allows for the production of energy equivalent to 51 billion tons of oil equivalent, calculated on 320-330 sunny days per year. By the end of 2022, a total of 5 large solar power plant projects are being implemented in the country (for example, in Navoi, Bukhara, Kashkadarya regions).

#### 3. Problems and obstacles.

At the same time, there are a number of problems in the process of transition to a green economy in the conditions of Uzbekistan. Limited scientific research: domestic scientific research on ecological innovations, waste recycling, water-saving technologies is insufficient. Environmental awareness among the population and entrepreneurs remains low. This hinders practical actions such as green consumption, environmentally responsible production. Green financing instruments are limited. Currently, "green bonds", environmental insurance, or special environmental funds are not widely implemented in Uzbekistan.

#### 4. The balance between economic benefits and environmental sustainability.

The green economy is often associated with the need to ensure a balance between economic benefits and environmental safety. For example, for some enterprises, the introduction of environmentally friendly technologies requires high initial costs. However, long-term analyses show that the opportunities for energy saving, waste reduction, and access to international markets offset these costs.

#### 5. Recommended approaches.

The following should be a priority in the transition to a green economy. The provision of environmental tax incentives and subsidies by the state, the promotion of green innovations, especially within the framework of startups and small businesses, the expansion of environmental education and civic awareness programs, the creation of a "green investment portfolio" in cooperation with international financial institutions.

Conclusions and recommendations The green economy is an inevitable direction of modern human development. It is emerging as an important tool that serves not only to protect the environment, but also to ensure the long-term sustainability of the economy. This study found that countries implementing a green economic approach worldwide are shaping their development strategies not

only based on economic growth, but also on environmental safety, resource efficiency, social justice, and the interests of future generations. For Uzbekistan, the transition to a green economy is not an option, but a necessary condition for maintaining ecological balance, increasing international competitiveness and achieving social well-being. Although the steps taken in this direction in recent years are noteworthy, many opportunities have not yet been fully mobilized. Analyses show that Uzbekistan's existing solar and wind energy potential, rich agricultural reserves, youth potential and the desire for digital technologies create a favorable environment for the development of a green economy. In my personal opinion, several key principles should be put into action for a successful transition to a green economy.

1. Consistency and systematicity of state policy - strategic decisions should cover long-term, not short-term, goals. Green principles should be clearly and mandatorily reflected in legislation.
2. Strengthening environmental education - the formation of an ecological culture and green thinking among the younger generation is more important than any technological breakthrough. In this regard, it is necessary to widely introduce practical eco-projects throughout the system, from general schools to higher education.
3. Development of green financing mechanisms - it is necessary to establish special funds, green bonds, grant programs to finance environmental projects. This will also actively involve the private sector.
4. Increasing attention to local scientific research - the solution to environmental problems often lies in innovations adapted to local conditions. Therefore, it is important to stimulate the potential of young scientists, students and scientific institutions.
5. Introduction of green standards in entrepreneurship - it is necessary to introduce a system of environmental certification and monitoring in manufacturing enterprises and service sectors. This will form ecological competition.

In short, the transition to a green economy is not just a set of environmental measures, but also a movement that fundamentally changes the thinking of society, the structure of the economy and the management approach of the state. I believe that the intellectual potential of the youth of Uzbekistan, their love for nature and openness to change play a decisive role in this process. The green economy is our future, and building it depends on our actions today.

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