



DEVELOPMENT OF THE GREEN ECONOMY IN THE REPUBLIC OF UZBEKISTAN

U. K. Mukhtarova

Alfraganus University, Senior Lecturer, Department of "Economics

A B S T R A C T	K E Y W O R D S
Sustainable development is a concept that offers an integrated approach to economic growth, social progress, and environmental protection. It recognizes that economic growth must be sustainable and should not come at the expense of the environment and society. The green economy is one of the key instruments for achieving sustainable development. This article examines the development of the green economy in the Republic of Uzbekistan, analyzes international data on the advancement of energy-saving technologies and the reduction of greenhouse gas emissions, and presents the results of research on modern trends in green financing for implementing projects aimed at introducing resource-saving technologies, creating new capacities through renewable energy sources, and developing socially oriented investment.	Green economy, green financing, sustainable development, renewable energy sources, resource-saving technologies, climate change.

Introduction

Climate change and its impact on the global economy have become some of the most significant issues of the modern world, exerting both economic and environmental effects on countries. In recent decades, the world has faced growing environmental challenges, including global warming, the degradation of natural resources, and widespread environmental pollution. These problems require immediate action and have led to increased attention to new concepts of economic development that combine economic growth with environmental protection. Against this background, the concept of a "green economy" comes to the forefront, offering approaches that help integrate the sustainable use of resources and the reduction of the carbon footprint with economic growth.

Each year, human activity releases around 20 billion tons of carbon dioxide into the atmosphere and produces more than 300 million tons of plastic waste. Global emissions on Earth continue to increase. According to the World Health Organization, about 99 percent of the world's population breathes air whose quality parameters exceed permissible limits, posing a serious threat to human health. Tens of millions of annual deaths worldwide are attributed to environmental causes, including air pollution. Harmful levels of fine particulate matter and nitrogen dioxide are mainly caused by the burning of fossil fuels.

The planet is experiencing a global energy crisis, a cost-of-living crisis, a food crisis, wars, drought, and hunger. Extreme weather events induced by climate change — such as tropical cyclones, desertification, and sea-level rise — cause enormous damage to countries. Increasing natural disasters are the result of rising greenhouse gas emissions.

Climate change issues negatively affect environmental and food security and the eradication of poverty. Based on this, Uzbekistan pays great attention to reducing the impact of climate change and adapting to it, accelerating measures for the transition to a green economy, and promoting a green and inclusive model of economic growth. The year 2025 has been declared the “Year of Environmental Protection and the Green Economy” in Uzbekistan. The green economy is an important direction aimed at protecting the environment and ensuring balanced economic development. The main task of the transition to a green economy is to foster a responsible human attitude toward Earth’s resources. Society faces the goal of finding a reasonable compromise between improving well-being and preserving natural resources. One of the principles of the green economy is state support for sustainable production and consumption, as well as the introduction of low-carbon and resource-saving technologies.

The development of the green economy is one of the key elements of a sustainable economic growth strategy in our era. In the face of rapidly changing environmental conditions, countries around the world, including Uzbekistan, recognize the need to move toward new models of economic development that combine the use of renewable energy sources with innovative, environmentally friendly technologies. Such a transition allows not only to reduce carbon emissions and improve the ecological situation but also to ensure long-term economic stability, creating new opportunities for investment and strengthening the domestic economy.

Literature Review

The term “green economy” was first introduced into scientific circulation by economists D. Pearce, A. Markandya, and E. Barbier in their 1989 report to the UK government titled “Blueprint for a Green Economy.” This document presented recommendations for changing state policy and economic models to address climate change issues in the context of industrialization. These recommendations covered topics such as national well-being, rural life, water use, waste reduction, lowering carbon dioxide levels, and transportation.

According to scholars, there is no single universally accepted definition of the term “green economy” in economic literature. Vakhobov A.V. and Khajibakiev Sh.Kh., discussing the priorities and necessity of the transition to a green economy, note that in some sources, the green economy is described as new sectors of the economy that contribute to improving environmental protection, while other researchers emphasize that the green economy studies new technologies and ecosystems that benefit nature. Another group of scholars believes that the green economy represents a new stage of development aimed at creating environmentally friendly products.

According to Rakhmanov Sh.I., one of the main directions for the development of the green economy in the Republic of Uzbekistan is the creation of a legislative framework in this area. V.I. Vernadsky asserted that humanity, in the course of its development, has become a powerful “geological force,” transforming the planet through thought and labor. Therefore, in order to survive, it must take responsibility for the development of the biosphere as it transforms into the noosphere, which requires

a new social organization and an ecological and humanistic ethic. Thus, today there are several approaches to understanding the essence of the green economy.

Research Methodology

The research applies theoretical and practical scientific methods, including comparative analysis, generalization, horizontal and vertical analysis, synthesis, induction, and deduction. Statistical data from international financial institutions and organizations, as well as data from the Agency of Statistics under the President of the Republic of Uzbekistan, were used in preparing the article.

Analysis and discussion of the results

On November 20, President Shavkat Mirziyoyev announced that 2025 would be the Year of Environmental Protection and the Green Economy in Uzbekistan. The head of state emphasized that the negative effects of climate change are now being felt not only in Uzbekistan but also around the world. Air and water pollution, soil erosion, desertification, and the uncontrolled use of fossil fuels lead to global warming, an increase in natural disasters, and serious harm to the environment and human health.

Like other Central Asian countries, Uzbekistan is vulnerable to the effects of climate change. This problem threatens natural capital and the agricultural sector, including land and water resources, and increases the risk of natural disasters. According to the Global ND-GAIN Index comparing countries' adaptation levels to climate change, Uzbekistan ranked 65th out of 187 countries in 2022. About 70% of Central Asia's development challenges are related to water scarcity. According to the World Resources Institute, Uzbekistan is among the 25 countries most exposed to water stress, and climate change is worsening the problem.

As a result of global climate change, the area of glaciers in Central Asia has decreased by about 30% over the past 50–60 years. Estimates suggest that glacier volume will decrease by 50% with a 2°C rise in temperature and by 78% with a 4°C rise. By 2050, water resources in the Syr Darya basin are expected to decline by 15%. Uzbekistan's economy ranks fifth in the world in terms of greenhouse gas emission intensity, generating nearly half of all emissions from energy use. Electricity demand in Uzbekistan totals about 69 billion kWh, of which nearly 90% is produced by burning gas and coal, while only 10% comes from renewable energy sources.

In recent years, Uzbekistan has adopted and implemented several strategic documents, including the Presidential Decree approving the “National Strategy for the Transition to a Green Economy for 2019–2030” and the establishment of the “Interdepartmental Council on the Green Economy”. The country launched the nationwide “Green Space” initiative and began implementing the “Regional Climate Strategy” jointly with neighboring states. Furthermore, the University of Central Asia was established in Tashkent to specialize in climate and environmental studies.

Laws such as “On the Use of Renewable Energy Sources”, “On Hydrometeorological Activities”, and the “Environmental Protection Concept of the Republic of Uzbekistan until 2030” have been adopted. In 2023–2024, a “Green Energy Certification System” was introduced to monitor the quality of products and processes using environmentally friendly technologies and renewable energy sources.

The development of the green economy in Uzbekistan aims to achieve sustainable economic growth through the introduction of low-carbon, resource-saving technologies and the improvement of energy efficiency across all sectors of the economy. The strategy targets, by 2030 (compared to 2010 levels):

- ✚ increasing the share of renewable energy sources to 30–40%;
- ✚ reducing carbon emissions by 10%;
- ✚ modernizing thermal power plants to lower natural gas consumption;
- ✚ shifting urban public transport to environmentally friendly fuel;
- ✚ increasing household waste recycling to 65%;
- ✚ improving water use efficiency and introducing water-saving irrigation technologies;
- ✚ encouraging climate-smart agriculture and organic farming;
- ✚ attracting investments in green technologies through public-private partnerships and international cooperation;
- ✚ reducing greenhouse gas emissions by 35%.

Uzbekistan has significant potential for renewable energy development, particularly solar and wind energy. As one of the sunniest countries in Central Asia, Uzbekistan has unique opportunities for solar energy use. In 2021, a 100 MW solar power plant was commissioned in Navoi region, and in 2024, new wind energy projects were announced. In the coming years, 28 large solar and wind power plants with a total capacity of 8 GW are expected to be launched.

Conclusions and suggestions

Uzbekistan is consistently implementing a state policy aimed at developing the green economy amid growing shortages of key natural resources and increasing demand driven by industrial and population growth.

The main directions for the development of the green economy in the Republic of Uzbekistan include:

1. Implementation of clean technologies to reduce the negative environmental impact of production and consumption while improving resource efficiency.
2. Creation of a legislative framework for the green economy as a key element of the transition to sustainable development and rational use of natural resources. Currently, Uzbekistan lacks a comprehensive legal framework in this area.
3. Promotion of green investments — allocating capital to projects, companies, or technologies aimed at reducing environmental impact and developing a sustainable economy. According to expert estimates, by 2030, approximately 93 trillion USD will be allocated globally for green projects, requiring extensive use of appropriate financial instruments.
4. Efficient management of natural resources — sustainable development requires rational use of natural resources, minimizing emissions and waste, and preserving the environment.
5. International integration — since sustainable development issues are global, it is necessary to strengthen cooperation and integration among countries to address economic, environmental, and social challenges.
6. Social protection and equity — sustainable development implies taking into account the interests of all social groups by ensuring access to a clean environment, equal opportunities, fair income distribution, and poverty reduction.

References

1. Resolution of the President of the Republic of Uzbekistan No. 841 of October 20, 2018, "On measures to implement national goals and objectives in the field of sustainable development until 2030"
2. Resolution of the President of the Republic of Uzbekistan "On approval of the strategy for the transition of the Republic of Uzbekistan to a green economy for the period 2019-2030" of October 4, 2019, No. PP-4477
3. State Committee on Ecology of the Republic of Uzbekistan, Green Economy Development Program until 2030.
4. Karimov A.B. Green Economy Development Prospects in Uzbekistan, Economy and Education. - 2023. - No. 1. - pp. 103-107.
5. Khasanova, D.Sh. Renewable Energy as the Basis for Green Growth, Energy in Central Asia. — 2022. — No. 3. — P. 55–60.
6. State Statistics Committee of the Republic of Uzbekistan. Environmental Statistical Yearbook. — Tashkent: Goskomstat, 2023. — 164
7. Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan. National Report on the State of the Environment. — Tashkent: MEOSK, 2022. — 95 p.