

## GREEN FACTOR OF ECONOMIC GROWTH IN UZBEKISTAN (PROBLEMS AND PROSPECTS)

Saidkamolkhon Bakhodirov

Daniel Korjakov,

Activists and Students of Uzbekistan,

Who aims to make the world a better place to live

### Abstract

The article discusses the features, problems and prospects of the green factor of economic growth in Uzbekistan, analyzes international experience in the transition to a green economy, and also describes the main directions of development of the green economy in the Republic of Uzbekistan.

**Keywords:** green factor, green economy, industry 4.0, green investments, green technologies.

### Introduction

The methodology of this article uses methods of observation, generalization, grouping, comparative analysis, and theoretical interpretation. In addition, the scientific basis of the article is made up of international standards and regulatory documents, information from research by scientists in domestic and foreign scientific publications.

One of the significant features of the beginning of the 21st century is the fourth industrial revolution (Industry 4.0), which implies fundamental transformations in the production sector based on new generation information technologies. However, an important characteristic and significant difference between the new industrial revolution and the previous ones is the rapid increase in the relevance of environmental and climate problems, which can rightfully be considered as a “green” factor in the development of the world economy.

### Analysis and Results

Climate change and its consequences are priority challenges and threats to the global sustainable development of the world economy and the well-being of the world's population. This problem affects important sectors of the economy, such as agriculture, energy, infrastructure and healthcare, which in turn negatively affects the growth rate of GDP, economic modernization and, ultimately, the environmental and national security of the country. According to a report by the Swiss Re Institute, the global economy could shrink by 18% over the next 30 years. In particular, under a worst-case scenario of a 3.2°C temperature increase, China could lose almost a quarter of its GDP (24%) by mid-century. In the US, Canada and the UK, losses will be about 10%. Europe will be slightly more affected (11%), while countries such as Finland or Switzerland are less at risk (6%) than, for example, France or Greece (13%).

To achieve green and sustainable economic growth, the world community is actively implementing strategies and measures to combat climate change and its negative consequences.



1. Paris Agreement. At the 21st session of the Conference of the Parties to the UN Framework Convention on Climate Change on December 12, 2015 in Paris, 196 countries adopted an agreement on climate change, the goal of which is to keep the increase in global average temperature to 1.5 degrees Celsius. The Agreement entered into force on November 4, 2016.
2. The 2030 Agenda for Sustainable Development. In 2015, world leaders from all countries adopted the 17 Sustainable Development Goals for 2030 proposed by the United Nations. The program includes: 17 goals, 169 targets and 230 indicators aimed at ending poverty, reducing inequality and protecting the planet. The program is viewed through the lens of three pillars: social inclusion, economic growth and environmental protection; and is based on five critical dimensions: people, prosperity, planet, partnership and peace, also known as the 5Ps.

Most countries in the world are gradually making the transition to a green economy, where ecology is the engine of progress. The concept of green economy has emerged in the last two decades and is closely related to the concept of sustainable development. Practice proves that sustainable economic growth is the only source of increasing income and, accordingly, investment to eliminate accumulated environmental damage, “green” modernization of production, which helps to increase the productivity of primary resources and, consequently, reduce the resource intensity of the economy and the load on life-supporting environmental ecosystems. The term «green» economy was first coined in 1989. Although there is no single definition of a green economy, there is a general understanding that it means an economy that improves human well-being and social equality by significantly reducing environmental risks and the scarcity of environmental resources. And aims at sustainable development without environmental degradation.

At the end of 2019, the EU launched the European Green Deal plan, which aims to achieve carbon neutrality by 2050. Achieving this goal will require concerted action from all sectors of the EU economy, including:

- investing in environmentally friendly technologies
- support for industry to introduce innovations
- introducing cleaner, cheaper and healthier modes of private and public transport
- decarbonization of the energy sector
- increasing the energy efficiency of buildings
- working with international partners to improve global environmental standards.

The European Green Deal also includes an interim target of reducing greenhouse gas emissions from 40% to at least 55% by 2030 (compared to 1990).

For this purpose, a road map was adopted – the main document defining the main directions and actions of the EU for the transition to climate neutrality. It outlines the investments needed and available financing tools and explains how to ensure a fair and inclusive transition to help those most affected by the transition to a green economy. The Green Deal covers all sectors of the economy, especially transport, energy, agriculture, and construction.



The Republic of China, as one of the world powers, has also made significant progress in environmental issues. In recent years, in China, solving environmental problems has become part of the priorities of the state, which has developed a set of legislative, political, regulatory and economic initiatives.

During his speech at the 75th session of the UN General Assembly, Chinese President Xi Jinping said that China intends to “peak CO<sub>2</sub> emissions by 2030 and achieve carbon neutrality by 2060.” It should be noted that today China is the world's largest consumer of energy and produces more than a quarter of all carbon emissions every year, which makes the country one of the leaders in environmental pollution. However, the intensity of carbon dioxide emissions in China in 2020 decreased by 18.8% compared to 2015 and by 48.4% compared to 2005. Also, at the end of October 2021, the installed capacity of renewable energy sources in China reached one thousand gigawatts – one terawatt. This is twice as much as at the end of 2015. The share of renewable energy sources in the national energy mix reached 43.5%, an increase of 10.2% compared to the end of 2015.

Uzbekistan is among the countries most vulnerable to climate change. In the near future, an acceleration in the rate of temperature rise and drought is expected throughout the country, and mainly in its western part. Our country is also implementing comprehensive measures to develop a “green economy”, which are aimed at modernizing and diversifying basic sectors of the economy, as well as balanced socio-economic development of territories. Work in this direction began at the beginning of 2020, after the approval of the “Strategy for the transition of the Republic of Uzbekistan to a green economy for the period 2019-2030” in October 2019. During the development of the Strategy, the following problems were identified that impede the achievement of goals and objectives in the field of sustainable development of the country:

1. Accelerated industrialization and population growth significantly increase the economy's need for resources, and also increase the negative anthropogenic impact on the environment and the growth of greenhouse gas emissions;
2. Low level of energy efficiency of the economy;
3. Irrational consumption of natural resources;
4. Slow technology update;
5. Weak participation of small businesses in the implementation of innovative solutions for the development of a “green” economy.

The Strategy identified the main objectives of the transition of the Republic of Uzbekistan to a “green” economy:

- increasing the energy efficiency of the economy and rational consumption of natural resources through technological modernization and the development of financial mechanisms;
- inclusion of “green” criteria based on advanced international standards in priority areas of public investment and expenditure;
- assistance in the implementation of pilot projects in the areas of transition to a “green” economy through the development of government incentive mechanisms, public-private partnerships and intensified cooperation with international financial institutions;



- development of a system of training and retraining of personnel related to the labor market in the “green” economy, by stimulating investment in education, strengthening cooperation with leading foreign educational institutions and research centers;
- taking measures to mitigate the negative impact of the environmental crisis in the Aral Sea region;
- strengthening international cooperation in the field of green economy, including through the conclusion of bilateral and multilateral agreements.

Among the target indicators for the implementation of the strategy are:

- reduction in specific greenhouse gas emissions per unit of gross domestic product by 10% from the 2010 level;
- doubling the energy efficiency indicator and reducing the carbon intensity of the gross domestic product;
- further development of renewable energy sources, bringing their share to more than 25% of the total electric energy generation;
- ensuring access to modern, inexpensive and reliable energy supplies for up to 100% of the population and economic sectors;
- modernizing the infrastructure of industrial enterprises, ensuring their sustainability by increasing energy efficiency by at least 20% and increasing the use of clean and environmentally friendly technologies and industrial processes.

In March 2021, an international online forum “Towards new opportunities: Green recovery of Uzbekistan after the COVID-19 coronavirus pandemic” was held, which determined mechanisms for the transition of the Republic of Uzbekistan to a green economy. The forum presented a brief overview of the analytical note “Green recovery and Uzbekistan’s transition to a green economy” prepared by the UN Development Program. The document identified and analyzed priority sectors for green recovery, their opportunities and challenges. A list of priority “green” strategies, measures and practices that could contribute to the practical implementation of the National Green Economy Strategy was also presented.

## Plans and tasks

As part of the Paris Agreement, Uzbekistan reaffirms its commitment to reduce greenhouse gas emissions per unit of GDP by 35% by 2030. To achieve these goals, Uzbekistan has adopted a Strategy for the transition to a green economy for 2019-2030. As a result of implementation, it is expected to double the energy efficiency indicator, further develop renewable energy sources, bringing their share to more than 25% of the total electric energy generation, modernize the infrastructure of industrial enterprises, ensure their sustainability by increasing energy efficiency by at least 20% and more application of clean and environmentally friendly technologies and industrial processes.

Uzbekistan has a high technical potential for producing energy from renewable sources, of which about 97% comes from solar energy. The solar generation potential ranges from 525 to 760 billion kWh. This is due to the fact that the number of sunny days per year is 320 days and the number of hours of active sunshine is on average 3,000 hours.

By 2026, it is planned to increase the share of “green” energy to 8 thousand MW, which will reduce carbon dioxide emissions by 5 million tons. By 2030, the energy efficiency of the



economy is planned to double, and the share of renewable energy to at least 25%. Today we can talk about the dynamics of reducing emissions into the atmosphere. According to the State Statistics Committee, if in 2014 in Uzbekistan the volume of emissions of harmful substances into the atmosphere exceeded 1,162 thousand tons, then in 2021 this figure amounted to 909 tons.

## Conclusion and Offers

Among the main areas of development of the green economy in the Republic of Uzbekistan, which need to be paid attention to first of all, we can highlight:

1. Motivate the country's population to purchase environmentally oriented goods, encourage businesses that rely on green technologies. As practice shows, business is the locomotive and leading force in the development of everything practical and energy-saving. It is important for entrepreneurs to explain and show the benefits of introducing energy-saving technologies.
2. Introduction of clean technologies. The concept of “clean technologies” includes five groups of technologies:
  - renewable energy sources (photovoltaics, wind energy, biomass, biofuel, biogas, solar thermal energy) and alternative energy;
  - environmentally friendly transport (alternative fuels, hybrids and electric vehicles);
  - electrical energy management systems (energy saving, smart energy systems, energy efficiency);
  - management of emissions, waste, transportation, collection, waste disposal and recycling;
  - innovative modern materials and technologies (biological technologies, nanotechnologies, environmentally friendly materials). The use of accessible, inexpensive green technologies in energy, water and land use is an urgent task on the path to creating a green economy. The dissemination of green technologies will significantly simplify government programs for the sustainable use of water resources, reduce the burden on natural ecosystems, reduce public costs and improve the quality of life of the population.
3. Application of green investments. Although green finance as a segment of the financial market is still in its infancy, financial instruments such as green loans, green bonds, green investment funds and green stock indices are showing rapid development. According to expert estimates, by 2030, about \$93 trillion will be allocated worldwide for the implementation of “green” projects, which requires the widespread use of appropriate financial instruments.

## References

1. 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” dated October 4, 2019 No. PP-4477
2. The Swiss Re Institute (2021). World economy set to lose up to 18% GDP from Climate change if no action taken, reveals Swiss Re Institute’s stress-test analysis
3. Transforming our World: The 2030 Agenda for Sustainable Development. United Nations, 2015.



4. Porfiryev Boris Nikolaevich “green” factor of economic growth in the world and in Russia // Problems of forecasting. 2018. No. 5 (170). URL: <https://cyberleninka.ru/article/n/zelenyy-faktor-ekonomicheskogo-rosta-v-mire-i-v-rossii> (access date: 01/10/2022).
5. Policy Brief: Green recovery and transition to a Green Economy in Uzbekistan. 2021.
6. “European Union – Central Asia: cooperation in the field of water resources, environment and climate change” (WECOOP).
7. <https://wecoop.eu/ru/glossary/green-deal/>
8. Press Office of the State Council of the People's Republic of China. White Paper: China's Response to Climate Change: Policies and Actions. 2021.
9. Shermukhamedov, A. T. Development of a green economy in Uzbekistan / A. T. Shermukhamedov, B. M. Kholboev // Progressive technologies and processes: collection of scientific articles of the 7th All-Russian scientific and technical conference with international participation, Kursk, 24 –September 25, 2020. – Kursk: Southwestern State University, 2020. – P. 177.
10. Communication from the Commission. Action Plan: Financing Sustainable Growth. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097>.

