



Green Economy and Ways of its Development in Uzbekistan

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ABSTRACT

In this scientific article, the definitions of the term "green economy" given by scientists of the world and our country are brought into one system and explained. The content, essence and necessity of the theory of "green economy" are revealed. The level of importance and relevance of "green economy" in Uzbekistan is shown on the basis of regulatory and legal documents. At the same time, the impact of "green economy" on industries and sectors and its necessity are shown. At the same time, the theoretical foundations and practical importance of "green economy" in the education system of our country, as well as the trend of development, have been scientifically substantiated.

Keywords:

Green, green economy, environment, resources, green investment, green space.

Introduction

Comprehensive measures aimed at deepening the structural changes implemented in our country, modernization and transformation of the basic sectors of the economy, and simultaneous socio-economic development of the regions are being implemented.

According to the Decision of the President of the Republic of Uzbekistan dated April 4, 2023 No. PQ-108 "On measures to expand scientific approaches in the implementation of economic reforms and further improve the system of training management personnel", the project office "Promotion and introduction of green economy" in the structure of the Higher School and The task is to establish a business incubator and a center for work with start-up projects and to develop the institutional foundations of the introduction of "Green" technologies, to carry

out scientific and innovative research, as well as to establish cooperation with leading foreign educational institutions and scientific research centers in the improvement of personnel qualifications in this field.

On July 8-9, 2019, in the capital of our country, the regional ministries of the European and CIS countries on the "green" economy aimed at improving the regulatory framework and policy on the "green" economy, supporting innovative "green" investments through partnership relations between the state and the private sector. The conference is one of the important aspects for the development of the green economy. At the same time, the conducted analysis showed that there are interrelated problems and needs in ensuring the effective, efficient use of resources and an environmentally safe economy in the face of climate change [1].

Today, the accelerating industrialization in world practice, as well as the requirements of Industry 3-4.0 and the increase in the population significantly increase the economy's need for all resources. This increases the negative anthropogenic impact on the environment and leads to an increase in greenhouse gas emissions. The low level of energy efficiency in the economy, the unreasonable use of natural resources, the slowness of technology renewal, the insufficient participation of small businesses in the introduction of innovative solutions for the development of the "green economy" prevent the achievement of the priority national goals and tasks in the field of sustainable development of the country. It is well known that without a long-term strategy, it may not be possible to ensure systematic measures for the introduction of "green" technologies and the transition to a "green" economy.

Today, a legal framework is being created in all countries for the development of the green economy. In particular, the implementation of the tasks defined in the "Development Strategy of New Uzbekistan for 2022-2026", increasing the effectiveness of the measures implemented to ensure "green" and inclusive economic growth within the framework of the strategy of the transition to the "green" economy of the Republic of Uzbekistan, the use of renewable energy sources. The goal is to further expand the saving of resources in all sectors of the economy. This goal is stated in the Decision of the President of the Republic of Uzbekistan dated December 2, 2022 No. PQ-436 "On measures to increase the effectiveness of reforms aimed at the transition of the Republic of Uzbekistan to a "green" economy by 2030" [2].

The President of the Republic of Uzbekistan Shavkat Mirziyoev in his speech at the second international summit "Green growth and cooperation for global goals - 2030" (P4G) held in the Republic of Korea on May 30, 2021: "Today we should not be indifferent to the warning call that Mother Nature herself is sending to us. Unfortunately, climate change is getting worse. In Central Asia, where we live, the average annual temperature has risen by about

one degree in the last 30 years. The decline of major river basins and biodiversity in our region is a serious concern. Evaporation-increasing gases and widespread air pollution are exacerbating the problem. Today, no one doubts that the efforts of countries should be more active and effective in order to achieve the goals of "green development". We have no other option," he said [3]. This, in turn, improves the further reform of the legal framework for the development of the green economy.

Resolution No. 374 of the Cabinet of Ministers of the Republic of Uzbekistan dated July 8, 2022 "Implementation of the projects "Green Economy Development Program" with the participation of the French Development Agency and "Acceleration of Uzbekistan's Development Policy in the Transition Period" with the participation of the OPEC International Cooperation Fund, as well as measures to service the state's foreign debts on" was approved. According to it: on April 19, 2022, between the Republic of Uzbekistan and the French Development Agency, within the framework of the implementation of the "Green Economy Development Program" project, EUR 100.0 million (tranche 1) will be repaid within 20 years with a 6-year grace period to support the budget. and EUR 50.0 million (2nd tranche) loan agreement totaling EUR 150.0 million was signed. On April 19, 2022, a loan agreement in the amount of 100.0 million US dollars was signed between the Republic of Uzbekistan and the OPEC International Cooperation Fund to support the budget within the framework of the "Acceleration of Uzbekistan's Development Policy in Transition" project with a 5-year grace period and a 20-year repayment period. The loan allocated by the French Development Agency (FTA) and the OPEC Fund will be directed to finance the budget expenditures of the Republic of Uzbekistan [4]. The above decisions, effective projects and important goals show the relevance of the chosen topic and the importance of reforming its legal base.

Literature Review

Today, there are definitions and scientific approaches to the term green economy, and there are different definitions and

scientific approaches by economists. Environmental problems are now included in the economy as a limited commodity. A new trend has formed and is actively developing - "green economy". "Green economy" is a branch of economic science in which the economy is a dependent component of the natural environment in which it exists [5]. It explains the idea that it is aimed at ensuring the well-being of society through the effective use of natural resources, as well as returning end-use products to the production cycle.

There are also comments that green investments are sources of financing projects and models aimed at protecting the environment, introducing new environmentally friendly technologies, green financial products, new markets for alternative energy, and development of green energy types [6].

Uzbek scientists A.A. Isadzhonov "Green economy" is the economy of tomorrow and it is the driving force of economic development of the 21st century. The theory of green economy is based on the following three axioms:

- it is not possible to continuously expand the sphere of influence in a limited space;
- in conditions of limited resources, it is impossible to demand the satisfaction of continuously increasing needs;
- Emphasizes the idea that "everything on earth is connected with each other" [7].

M.A. Oripov in his scientific article "Necessity and opportunities for the development of bioeconomy sectors in Uzbekistan" in order to ensure rapid growth of the bioeconomy in order to achieve food supply and security of the country's population, further revitalization and high added value of circular production and the organization of clusters in the sector emphasizes the need to create bioproducts and increase their export, and cites several other areas of bioeconomy development [8].

There are also opinions that green economy means a new direction of economic activity based on the further development of the economy related to production and service sectors while preserving the resources

necessary for human life and health, the environment, ecology [9].

According to the United Nations Environment Program (2019 programme): "The 'green economy' is economic activity related to the production, distribution and consumption of goods and services that lead to long-term improvements in human well-being, while will not expose future generations to serious environmental risks and reduce scarcity." According to the United Nations Environment Program (2011 program): "A 'green economy' is a resource-efficient economy based on low-carbon development that improves human well-being and social equity, while significantly reducing environmental risks and biological prevents the loss of diversity.

The United Nations Conference on Trade and Development also has an opinion: "Green economy" is an economy that seeks long-term social benefits in the short term and leads to improved human well-being and reduced inequalities without exposing future generations to serious environmental risks and environmental deficits." In addition, experts of the United Nations Environment Protection Organization (UNEP) considered the "green" economy as an economic activity that improves people's well-being and ensures social justice, while significantly reducing the risk of the environment and its depletion.

In the Green Economy Coalition: "'Green Economy" is a sustainable economy that provides a better quality of life for everyone within environmental constraints."

The International Chamber of Commerce emphasizes that "green economy" is an economy in which economic growth and environmental responsibility are mutually reinforcing while supporting progress and social development.

In our opinion, based on the definitions and views given by the scientists of the world and our country, "Green economy" is a comprehensive analysis of the economic, social and ecological situation of the country, achieving economic efficiency with the help of strategic development, improving the economic and financial environmental indicators on the

basis of digital innovation transformation processes. It can be considered as stabilizing the country's economy and providing ecologically clean-living conditions for the population.

"Green economy" means improving the country's comprehensive development situation and ensuring economic stability in the future. Any country that wants to see itself among developed countries in the future must develop a "green economy" and link its strategic goals with it.

Analysis And Results

According to the Decision of the President of the Republic of Uzbekistan dated December 2, 2022 No. PQ-436 "On measures to increase the effectiveness of reforms aimed at the transition of the Republic of Uzbekistan to a "green" economy until 2030" in accordance with the program of transition to a "green" economy and ensuring "green" growth in the Republic of Uzbekistan until 2030 performance of the following tasks is defined:

- reduction of greenhouse gas emissions per unit of GDP by 35% from the level of 2010;
- increase the production capacity of renewable energy sources by 15 GW and increase their share in the total amount of electricity production by 30 percent;
- increase energy efficiency in the industrial sector by at least 20%;
- reducing energy consumption per unit of gross domestic product by 30 percent, including expanding the use of renewable energy sources;
- significantly increase the efficiency of water use in all sectors of the economy, introduce water-saving irrigation technology on an area of up to 1 million hectares;
- by planting 200 million saplings per year and increasing the total number of saplings to 1 billion, expanding green spaces in cities by more than 30 percent;
- increase the index of reserves of the republic's forest fund to more than 90 million cubic meters;
- tasks are set to increase the level of processing of generated solid household waste from 65 percent.

At the same time, the priority directions for increasing capacity for "green" growth and human capital development are: support for training and consulting services in private commercial and non-profit organizations through the allocation of small grants, open lectures on issues of the "green" economy for private commercial and non-commercial organizations, the provision of small grants aimed at covering the costs of holding conferences and seminars is indicated.

The Decision of the President of the Republic of Uzbekistan dated October 4, 2019 No. PQ-4477 "On approval of the strategy of the transition to the "green" economy of the Republic of Uzbekistan in the period 2019-2030" outlines the main tasks of the transition of the Republic of Uzbekistan to the "green" economy, and these are:

- increasing energy efficiency of the economy and rational use of natural resources through technological modernization and development of financial mechanisms;
- inclusion of "green" criteria based on advanced international standards in the priorities of state investments and expenditures;
- to support the implementation of pilot projects in the directions of the transition to the "green" economy through the development of state incentive mechanisms, public-private partnerships, and the activation of cooperation with international financial institutions;
- development of the system of training and retraining of personnel related to the labor market in the "green" economy at the expense of encouraging investment in education, developing cooperation with leading foreign educational institutions and research centers;
- Taking measures to mitigate the negative impact of the environmental crisis on the island;
- organizes strengthening of international cooperation in the field of "green" economy, including by concluding bilateral and multilateral agreements.

The need to reduce the current economic system's dependence on fossil fuels is attracting the attention of governments around the world. Over the past few years, the term "green

economy" has been increasingly used by international organizations such as the United Nations (UN), the European Union (EU) and the Organization for Economic Co-operation and Development (OECD) as a synergy between sustainability, the economy and the environment. As the climate crisis reaches its peak, time is running out for governments and businesses around the world to curb emissions and transition to low carbon.

In the economy of our country, by 2030, it will be necessary to reduce greenhouse gases by 400 to 500 tons, or about 55 tons per year. Up to 15,000 tons of household and solid household waste are generated in Uzbekistan every day, and this amount reaches 5-5.5 million tons during the year. Experts estimate that by 2030 this figure will reach seven million tons.

In the last 50 years, per capita drinking water has decreased by 60 percent. Every year, 150-160 thousand cubic meters of water used in industry are poured into rivers and lakes. Due to natural disasters and technical errors, 25-30 million tons of oil fall into the oceans. The industry uses 300 cubic meters of water to produce one ton of steel, and 900 cubic meters of water to produce one ton of paper. 70% of the total water is used in agriculture, 20% in industry, and 10% in agriculture. By 2030, 47 percent of the world's population is expected to face water scarcity.

The "green" economy, based on the careful attitude of man to nature, serves to preserve the cleanliness of the environment, to raise the standard of living of the population through the rational use of natural resources and manufactured products. Concepts such as "green" city, "green" transport, "green" growth, "green" region, "green" chemistry, "green" technologies, and "green" energy are considered to be important directions.

According to the Ministry of Environmental Protection, the country imports 50 million tons of electronic and household waste every year. For example, more than 200,000 people collect waste in Beijing. At subway stations, supermarkets, there are separate collection points for all kinds of waste containers for a fee. There is a waste-to-energy thermal power plant in the state capital.

China is a world leader in electricity production and has a huge potential for "green" energy. In the total energy balance, renewable energy together with hydroelectric power stations makes up 20-22 percent. In terms of wind energy, China ranked first in the world in 2015-2017. There are hundreds of large hydroelectric power plants and more than 45,000 small hydroelectric power plants in this country. By 2030, it is planned to increase the production of clean energy here to 50%.

The USA is a country with developed industry and rich thermal energy. Coal is mined in 15 states, cars are produced in 26 states, and electronics are developed. 55-60 percent of all aircraft in the world are produced in the factories of this country. Three trillion kWh of electricity is produced annually, 80 percent of which is contributed by private power plants. 60 percent of electricity is obtained from thermal power plants, 20 percent from nuclear power plants, and 20 percent from hydroelectric power plants and renewable energy sources. By 2030, they want to increase the production of electricity based on solar energy to 15%, and by 2050 to 27%. Biofuels, particularly corn, are widely used as an energy source. Biofuel from corn is used as fuel for transport - 30 percent is planned. The United States manufactures and exports waste treatment technologies.

The demand for energy resources in Russia is increasing every year. He adopted the Energy Strategy of Russia for the period up to 2035. The country has 22 percent of forests and 20 percent of the entire planet's drinking water supply. Its vast territory allows for extensive use of solar energy. The electricity produced at hydroelectric power stations makes up 20 percent of the total capacity. Waste is the most urgent problem in this country: 20-25% of 70-75 million tons of waste is processed per year.

Uzbekistan is a country rich in natural resources, with alternative natural resources. There are all opportunities for rapid development of the "green" economy. In 2021, a dust storm became a natural disaster. The level of pollution in the city of Tashkent has exceeded the permissible norm according to international

standards. The reasons are dust, car emissions, etc.

"Green" economy is aimed at satisfying human needs, taking into account the interaction with the environment, giving priority to the well-being of future generations. In other words, the "green" economy is a system of economic activity related to the production, distribution, exchange and consumption of goods and services that lead to an increase in human well-being in the long term. This means that future generations will not be exposed to significant environmental risks or ecological shortages.

The system of directions in the "green" economy is distinguished:

1. Introduction of renewable energy sources (hereinafter referred to as RES). It should be noted that, according to environmentalists, more than half of all combustible minerals have not been explored in order to prevent significant climate change on our planet.

2. Improving the waste management system. Currently, in the developed countries of the world, 1 kg to 3 kg of solid household waste is produced per person per day, and in the United States alone, this amount is increasing by 10% every 10 years. In Russia, landfills occupy a total area of more than 2,000 square meters.

3. Improvement of the water resources management system. Now every sixth person on our planet is experiencing a shortage of clean drinking water.

4. Development of "clean" (sustainable, "green") transport. BMTA is working to reduce demand for transport, especially private vehicles, without disrupting overall mobility.

5. Organic farming in agriculture. This includes the rejection of the use of herbicides, pesticides, as well as fertilizers of artificial origin. Organic farming products do not contain genetically modified organisms, are processed without the use of E-ingredients, and are stored without contact with unnatural substances.

6. Energy efficiency in housing and communal economy. The presence of residential complexes equipped with inefficient heat insulation structures and heat supply systems leads to significant heat losses.

7. Conservation and efficient management of ecosystems. All diversity of human activity in the biosphere leads to changes, their direction and level are usually called ecological crisis.

The development of these areas of the "green" economy in accordance with the following principles will be appropriate:

- justice (equality);
- respect (welfare and well-being for all);
- precautions (taking into account the maximum loads on the planet);
- participation (in decision-making);
- management (accountability);
- economic, social and environmental stability;
- efficiency (sustainable production and consumption);
- relationships between generations (investments in the future).

"Green" economy is based on "green" technologies that work not with the consequences, but with the causes of environmental problems, fundamentally changing the approach, products, and most importantly, the behavior of consumers. These include:

- energy efficiency and alternative energy;
- power management systems;
- ecological transport;
- waste management, air and water emissions.

These technologies help to achieve the following goals set by the modern world economy:

1. Reducing environmental pollution and increasing resource efficiency in construction, manufacturing, agriculture and infrastructure sectors.

2. Mitigate negative climate change by switching to greener, cleaner energy (wind, solar, geothermal, tidal, hydro and bioenergy, waste energy, hydrogen) and low-carbon end-use processes (electric or hybrid engines).

3. Reduce vulnerability and adapt to climate change by developing early warning systems and temperature-tolerant technologies.

4. Improving management of biological diversity and forest resources.

5. Improving well-being through more efficient and sustainable use of biodiversity resources, including natural cosmetics and pharmaceutical products.

Thus, in our opinion, the following measures should be implemented:

- To satisfy the needs of the population and increase their well-being, level of living and quality, it is necessary to increase the creation of material benefits without harming ecology and environment.

- energy resources are needed for production and economic development, increase them from renewable energy sources, replace public transport with electric ones, and build energy-efficient buildings.

- it is necessary to give special importance to the production of environmentally friendly products by creating environmentally friendly technologies that do not release harmful gases into the environment.

- on the one hand, at a time when all resources in nature are limited, taking into account the infinity of human needs, in order to ensure their compatibility, taking measures to expand the production of benefits without reducing natural resources is one of the urgent issues.

- in order to meet the constantly growing needs of the population, great importance is attached to the question of how much to produce, how to produce, and to whom, while protecting the environment.

Conclusions And Suggestions

One of the main problems in the transition to a "green" economy, both globally and in our country, is the issue of waste. The negative aspects of the increase in waste are, firstly, air pollution, and secondly, landfills occupying large areas.

In order to transition to a green economy and eliminate environmental problems faster, it is necessary to invest in the careful use of energy resources, water and land, electricity generation and waste processing, and to strengthen the principle of public-private partnership. In this process, it is important to improve the ecological culture of the population, expand knowledge and outlook.

To sum up, firstly, the transition to the "Green" economy is a complex, large-scale and multi-sectoral process that includes dozens of directions. All this implies the wide application of foreign experience, the rapid introduction of an innovative approach, and the conduct of research and development. It is appropriate to establish the activity of a scientific-research institute with wide potential called "Green Economy and Ecology" in Uzbekistan.

It would be appropriate to organize a training seminar for managers and experts of state and economic entities at the Higher School of Business and Entrepreneurship under the Cabinet of Ministers of the Republic of Uzbekistan and to organize the teaching of the subject "Green economy and sustainable development" at the master's level of the higher school starting from the new academic year.

Secondly, it will be necessary to find opportunities to meet the need for financing the "Green Economy". In response to the rapid growth and increasing orientation of the capital market towards the "green economy", the development of market levers such as carbon financing and microfinance, and the economic downturn of recent years, funds are providing the possibility of large-scale financing of "green" economic reforms aimed at global "green" development. Therefore, in the near future, it will be necessary to rapidly expand these flows during the transition to a "green" economy.

Third, the transition to a green economy at the global level requires a large amounts of financial resources. Various scenarios of the International Energy Agency for halving CO₂ emissions by 2050 show that additional investments in the "green economy" are required to reach this goal at the level of 1-2.5% of world GDP. It is important that most of these investments will be directed to "greening" the construction and transport sectors.

Fourth, investments of financial, banking and insurance companies are becoming the main source of private investments in the "green economy". A large amount of capital circulates in the financial services and investment sector and can be seen as potential sources of investment in the "green economy". Today, it is important for public and private

sector institutional investors, banks and insurance companies to express their interest in the use of "green technologies" with the aim of reducing environmental, social and management risks, and it is necessary to use such opportunities effectively.

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