

STAGES OF DEVELOPMENT OF "GREEN ECONOMY" IN UZBEKISTAN

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Abstract

This article describes the stages of development of the "green economy" in Uzbekistan and the work being carried out in the framework of the development of "green energy" to provide cheap electricity to energy-deficient regions of the republic, improve the environment and increase energy efficiency.

Keywords: Green economy, Paris agreement, "Uzbekistan-Paris" agreement, energy efficiency, climate change, green energy, hydrocarbon energy, renewable energy.

Introduction

As the world moves towards a more sustainable future, Uzbekistan faces serious challenges in meeting global energy indicators, particularly in terms of high energy and carbon intensity. These conditions make the country vulnerable to foreign trade policy. However, Uzbekistan can turn this problem into an opportunity by adopting the global green transition and strengthening environmental and climate policy.

As most countries adopt low-carbon policies to combat climate change, global demand for carbon-intensive products will decline in the medium to long term.

This may have a negative impact on Uzbekistan's high-carbon exports, the country's GDP and prosperity. Uzbekistan needs to start the process of greening its economy immediately so as not to be stuck with technologies and systems that will cost more to decarbonize later. Prioritizing green goals must be an integral part of ongoing efforts toward a broader transition to a market economy. Other green measures, such as increasing resource efficiency, green employment and financial development, may also bring short-term benefits to Uzbekistan.

The need to transition to a "green economy" in Uzbekistan is due to the fact that most of the energy consumed in the national economy is produced using non-renewable natural resources, the limited supply of these resources, environmental pollution due to the rapid development of industry, water shortage, the Aral Sea. It is explained by the increasing environmental problems related to its drying up. Sustainable development of the economy of Uzbekistan, development of a long-term strategy of structural changes requires taking into account internal and global processes and problems.

In 2015, the Paris Agreement was adopted at the Conference of the Framework Convention on Climate Change. The goal of the Paris Agreement is to limit global warming to 2°C above the pre-industrial average in 2030 and to try to limit the increase to 1.5°C by 2050. It is required to reduce global emissions of greenhouse gases by 40-70% by 2100 and bring them to zero or negative by 2100. The Paris Agreement obliges developed countries to support developing countries in efforts to prevent and adapt to

climate change. In 2020, taking into account the needs and priorities of developing countries, the financial assistance will be 100 billion. it was decided to bring it to the dollar. Currently, the fund is financing 35 projects with a total value of 1.5 billion dollars. Among them, the issue of financing the project "Program for adaptation to climate change and its prevention in the Aral Sea basin" in cooperation with the World Bank for Uzbekistan and Tajikistan is being considered.

On April 19, 2017, Uzbekistan signed the "Uzbekistan-Paris" agreement at the UN Headquarters in New York. Uzbekistan's active participation in the Paris Agreement provides the following benefits for our country. Including.

- In the implementation of State programs on energy efficiency and energy saving, attraction of climate financing resources, development of renewable energy sources, improvement of land and water resource management, negative consequences and other opportunities;
- Participation in the Paris Agreement is an indicator for attracting investment resources and obtaining loans from international financial institutions and donor countries;
- Use of new technologies to mitigate climate change and adapt to climate change and cooperation in the field of innovative technologies;
- Cooperation in the field of adaptation to climate change, which will enable the country to implement adaptation measures to strengthen adaptation to climate change and reduce vulnerability. This is important from the point of view of solving the problem of the tragedy of the island;
- Donors will eliminate the adverse effects of climate change in cases where evidence of climate change damage is provided.

The system of long-term comprehensive measures for the development of the "green economy" in Uzbekistan was developed in coordination with the goals of sustainable development until 2030 at the initiative of the UN. The Republic of Uzbekistan announced that from 2015 onwards, it will support the sustainable development program of 17 goals and 169 tasks designed by the UN until 2030, and will carry out comprehensive work in the fields of sustainable development.

- To ensure universal access to cheap, reliable, stable and modern energy sources for everyone until 2030, to seriously increase the share of energy from renewable sources in the world energy balance;
- Doubling of the energy efficiency improvement indicator; the tasks of expanding the infrastructure and modernizing technologies to provide modern and stable energy are defined;
- Incorporating climate change mitigation measures into policy, strategy and planning at the national level, and improving awareness and capacity to prevent and adapt to the consequences of climate change and early warning of the risk of dangerous climate events;

- Protecting and restoring terrestrial ecosystems, promoting their rational use, rational use of forests, combating desertification, stopping and reversing the loss of land from the production cycle;

The adoption of the Action Strategy for the development of our country in 2017-2021 confirmed once again that the development of the "green economy" is one of the factors of ensuring sustainable economic growth.

On October 4, 2019, in order to consistently implement the tasks defined in the Action Strategy for the Development of the Republic of Uzbekistan in 2017-2021, including the fulfillment of the obligations of the Paris Agreement, on October 4, 2019, the President of the Republic of Uzbekistan "Transformation of the Republic of Uzbekistan to the Green Economy in 2019-2030" Decision No. PQ-4477 on approval of the transition strategy was adopted.

The goal of the strategy is to achieve social development, reducing the level of greenhouse gas emissions, and sustainable economic development that ensures climate and ecological stability by integrating the principles of "green" economy into the structural reforms implemented in the country.

In order to achieve the goals of the strategy, it is necessary to implement the following main tasks:

- 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;
- Support the implementation of pilot projects in the directions of the transition to the "green" economy by developing the state's incentive mechanisms, public-private partnerships, and activating 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;
- strengthening international cooperation in the field of "green" economy, including by concluding bilateral and multilateral agreements;

The long-term strategy of transition to a "green" economy in Uzbekistan is based on the following principles:

- Compliance with national goals and objectives in the field of sustainable development;
- Rational use of resources, sustainable consumption and production;
- Introduction of environmental and social criteria into the economic accounting system;

- The priority of using "green" means and approaches to achieve the goals of socio-economic development;
- Achieving existing macroeconomic goals by increasing competitiveness and improving performance in important sectors of the national economy, creating "green" jobs, and improving the well-being of the population;
- Ensuring the investment attractiveness of measures of effective use of resources. One of the priority directions of economic development of the "green economy" is to reduce the consumption of energy and resources in the economy, widely introduce energy-saving technologies in production, and expand the use of renewable energy sources.

Energy efficiency is an important factor in the rational use of energy sources in the economic and social spheres, increasing the profitability and competitiveness of the production sector, and saving energy, which in turn contributes to energy security, job creation, the growth of the population's well-being, and the development of the country. has a serious impact.

In order to reduce the energy capacity of the economy in our country and reduce the negative impact on the environment and climate changes within the existing energy capacity, it is necessary to implement the following:

- Quota import of equipment and equipment with high energy capacity in economic sectors and introduction of high import definitions;
- Introduction of preferential lending system for equipment and equipment with low energy capacity;
- Formation of skills and qualifications of legal entities and individuals on energy saving and energy efficiency.

Uzbekistan, like most developing countries, has a number of factors that negatively affect the development of the "green energy" sector:

- **First**, the high cost of renewable energy production and the low capacity of installed equipment compared to conventional energy production. In addition, Uzbekistan has a position in terms of costs of traditional energy production and electricity supply to the population. For example, in 2018, the cost of 1 kWh of electricity in Uzbekistan was 2.4 cents, while in Kazakhstan -3.5, in Turkmenistan - 0.7, in Russia - 4.8, in China - 13, in Germany - 33.8, in Great Britain - 18.6, in Denmark - 33.3, in Belgium - 31.8 cents.
- **Secondly**, lack of deep development of the financial support mechanism aimed at encouraging the use of renewable energy sources. It is necessary to improve the legal and institutional basis of the economic mechanisms supporting the use of renewable energy sources.
- **Thirdly**, the lack of development of advanced techniques and technologies based on modern management systems. The lack of technical improvement of the technologies used in the production of alternative energy and the fact that the financial

resources spent on the energy system are not profitable in the short term are serious negative obstacles in the development of the "green energy" sector.

- **Fourth**, like most developing countries, the population does not have enough information about modern renewable energy sources.
- **Fifth**, rapid development of innovative technologies in the field of renewable energy. In particular, in the short term, semiconductor solar panels were replaced by photovoltaic panels made of amorphous silicon. Inadequate production capacity of renewable energy technologies at the local level causes their cost, installation and maintenance costs to remain high. The rapid development of the network creates the need to transition from outdated technologies to new ones.
- **Sixth**, one of the factors hindering the development of the "green energy" sector is the development of nuclear energy.

In accordance with the "Concept of providing electricity to the Republic of Uzbekistan in 2020-2030" developed by the Ministry of Energy of the Republic of Uzbekistan, in 2020-2030 special attention will be paid to the production of electricity from renewable energy sources, including the development of solar energy. These projects are implemented only at the expense of investors - independent electricity producers. In order to achieve the development indicators of renewable energy, it is planned to build 3 GW of wind and 5 GW of solar power plants in 2020-2030.

In the framework of the development of "green energy", issues such as providing cheap electricity to energy-deficient regions of the republic, improving the environment and increasing energy efficiency, developing local industry and infrastructure, and creating new jobs will be resolved.

In particular, the concept of transition to a "green economy" in Uzbekistan in 2019-2030 includes a number of tasks. Including doubling the energy efficiency index, further development of renewable energy sources, increasing their share to more than twenty-five percent of the total volume of electricity production, providing the population and economic sectors with modern, cheap and reliable energy. provided for.

It is known that Uzbekistan loses at least 4.5% of its gross domestic product every year due to the use of hydrocarbon energy - oil, gas, coal. In addition, about half of the country's power generation capacity is obsolete. Their restoration or modernization requires a lot of money. Instead, it is preferable to switch to "green energy", which is considered both economically and ecologically efficient.

To sum up, the "green economy" is not only about reforming the energy sector. It includes multifaceted and wide-ranging measures such as clean drinking water problems, food security, agricultural innovations, sustainable cities, rational waste management, expansion of forest areas, reduction of desertification.

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