



## ECONOMIC ASPECTS OF GREEN ECONOMY DEVELOPMENT IN UZBEKISTAN

**Gulyamov S.S.** Tashkent State Agrarian University, Academician,  
Department of Agroecconomics, Professor,

**Baxodirov A.A.** Rector of the Belarusian-Uzbek Joint Inter-Sectoral  
Institute of Applied Technical Qualifications, Professor,

**Mamatakhunov N.A.** Rector of the Oriental University, Professor,

**Rasulova M.T.** Tashkent State Agrarian University, Senior Lecturer,  
Department of Agroecconomics,

**Salmetova U.H.** Tashkent Oriental University, co-researcher.

### Article history:

**Received:** 11<sup>th</sup> May 2025  
**Accepted:** 10<sup>th</sup> June 2025

### Abstract:

Due to the economic growth in Central Asian countries, the issue of alternative energy sources instead of complex hydroelectric power plants has often been raised recently. For example, recently in many countries around the world, solar panels, wind turbines, and incinerators have been used more often to generate energy. Our country has signed agreements with the world's leading companies on the construction of factories for the production of solar panels and wind turbines. They will be installed mainly in the southern regions of the Republic where high temperatures are observed.

**Keywords:** green energy, heating batteries, greenhouse

Development of renewable energy sources. The energy sector is a sector that has a significant impact on climate change and accounts for about 60% of greenhouse gas emissions. By 2030, the amount of annual investments directed by the countries of the world to form the necessary infrastructure for the development of the "green energy" sector will increase from the current 400 billion. 1.25 trillion dollars. Based on the above, the reasons for the increased investment in renewable energy globally are as follows:

First, the cost of solar and wind energy is decreasing. For many years, wind and solar energy was technologically more expensive than conventional energy sources

Second, global attitudes towards renewable energy are changing. At first, investment in renewable energy was considered a low-return sector, and the government tried to provide investors with various incentives and preferences to attract investment in the sector. Nowadays, the world community's views on the use of renewable energy and investment in the "green economy" in general have changed and has become a financial factor for increasing the flow of investment in this sector;

Thirdly, solar and wind energy are becoming the energy of the future. Bloomberg predicts that by 2020, 600 GW of electricity will be generated by solar panels, and by 2030, this figure will reach 1,900 GW. Accelerating the processes of transition to alternative

energy in the leading sector of the economy is seen as the beginning of a new era in the industry. Types of renewable energy include electricity; produced using wind energy; solar; biomass; geothermal energy; ocean energy, hydropower, thermal energy produced using biomass, solar, geothermal energy, including biofuels for transportation. our country.

In particular, cooperation with "Total Eren SA" (France) on design, financing, construction and operation of photovoltaic power plant with total capacity of 100 MW in Samarkand region has been signed, and an enterprise with foreign investment in the form of limited liability company "Tutly Solar" operating in the Republic of Uzbekistan for realization of this investment project has been established. The investment agreement between the Investor and the Project Company was signed on September 13, 2019. In accordance with the Power Purchase Agreement between Uzbek National Electricity Networks JSC and the Project Company, electricity generated under the Project will be purchased by Uzbek National Electricity Networks JSC as the sole purchaser. In 2019, Masdar Clean Energy from the UAE won the right to build a 100 MW solar power plant (cost of 1 kWh\*s - 2.679 cents). Twenty-three companies from China, Republic of Korea, Japan, Saudi Arabia, Russia and other countries participated in the tender. "Aco'a Poo'er" (Saudi Arabia) in the commercial tender; "Jinko Po'er" and "Aljoimah Energy & Oil Consortium" (China/Saudi Arabia);



"Masdar" (UAE); TBEA Xinjiang Sunoasis Co Ltd (China) and Total Eren (France) participated. Two new 400 MW and 500 MW solar projects are expected to be announced soon. The green economy strategy includes the following components:

- Reducing the amount of greenhouse gases emitted into the atmosphere and adapting to climate change;
- "launching new capacities based on "green" technologies;
- raising the standard of living by "greening" the lifestyle of the population and turning the Republic into a "model country with a green economy".

The Green Economy Program envisages the achievement of the following goals and related indicators:

- a) achievement of energy independence;
  - b) transition to an energy efficient society;
  - c) development of renewable energy sources;
  - g) achievement of full energy supply;
  - d) achieving economic growth and job creation through the development of green technologies.
- Uzbekistan's long-term strategy for transition to a "green economy" is based on the following principles:
- compliance with the national goals and objectives in the field of sustainable development;
  - rational use of resources, rational consumption and production;

Among these sources, solar and wind energy have great prospects. Wind turbines operate only at wind speeds above 5-6 m/s and provide energy for an average of 3200-4300 hours per year in areas of Uzbekistan with high wind potential (year length 8760 hours). Solar photovoltaic power plants operate only during daytime, when there is no cloud cover and there are few clouds. In areas of Uzbekistan with high solar potential, they provide energy for an average of 1500-2200 hours per year.

**Waste Management.** The annual forecast of municipal solid waste (MSW) generation in Uzbekistan is estimated at 14-14.5 million tons. Given an average population growth rate of 1.5%, this figure could reach 16-16.7 million tons by 2028. Waste 2% of glass and plastic products are thrown away and buried.

The Ministry of Ecology, Environment and Climate Change, together with foreign investors, has developed a number of projects. It is planned to build 8 incinerators and process landfill (landfill) gas at the Ahangaran landfill by investing about 1.3 billion dollars.

For example, it is planned to build two plants in Andijan and Tashkent regions at the expense of direct investments of the Chinese company CAMC Engineering in the amount of 350 million dollars. They will process

4,000 tons of waste per day and generate 630 million kWh of electricity per year.

Another Chinese company Shanghai SUS Environment plans to invest \$310 million in direct investments and build two plants in Samarkand and Kashkadarya regions. They will process 3000 tons of waste per day and generate 480 million kWh of electricity per year.

It is planned to build one plant for Bukhara and Navoi oblasts at the expense of Tadweer Group company from UAE in the amount of 200 million dollars. It will have the capacity to process 1500 tons of waste per day and produce 363 million kW·h of electricity per year. Incineration plants use the technology of utilization of industrial and solid domestic waste through thermal decomposition in boilers or furnaces. At the same time, heat and electricity are generated by utilizing the heat of combustion.

The project with Korea's Sejin will raise \$55 million to generate electricity from gas generated at a landfill in the Ahangaran district of Tashkent Region. The plant is expected to have a capacity of 16 MW.

#### Conclusions

1). "Green energy" is a concept to realize energy supply without consuming fossil fuels, without emitting greenhouse gases into the atmosphere and without harming the ecology of the environment. It is designed to meet consumer demand as much as possible through renewable energy sources. This type of energy is also referred to as "clean energy".

2). "Green jobs actually help solve the following problems:

- Increasing the efficiency of energy and raw material utilization;
- limiting greenhouse gas emissions;
- minimizing waste generation and pollution;
- protecting and restoring ecosystems;
- adaptation to the effects of climate change.

3). The term "green energy" applies to the following technologies:

- wind turbines installed on land and sea;
- various solar energy technologies - from solar panels installed on the roofs of buildings and houses to solar power plants with a capacity of up to 50 MW;
- generators running on vegetable oil or firewood
- geothermal sources that produce heat and energy from underground hot water or currents;
- small hydroelectric turbines installed on rivers;
- technologies that utilize sea waves, rising or falling water.

#### REFERENCES:



1. Law "On Ratification of the Paris Agreement (Paris, December 12, 2015)" of the Republic of Uzbekistan dated October 2, 2018 No. ZRU-491.
2. The Law "On Accession of the Republic of Uzbekistan to the Cartagena Protocol on Biosafety of the Convention on Biological Diversity (Montreal. January 29, 2000)" of the Republic of Uzbekistan of the Republic of Uzbekistan dated October 14, 2019 year #ZRU-569.
3. Decree of the President of the Republic of Uzbekistan "On Approval of the Strategy for Solid Waste Management in the Republic of Uzbekistan for the period 2019-2928" dated April 17, 2019 #PP-4291.