



---

## **PRIORITY DIRECTIONS OF BIOECONOMY DEVELOPMENT IN UZBEKISTAN**

Azizbek Khasanov

Teacher of the “Economics and Service”

Department of Sarbon University

Javokhir Khotamov

Head of the “Economics and Service”

Department of Sarbon University

---

### **Abstract**

This article analyzes the priority directions of bioeconomy development in Uzbekistan, in particular, the work being done on safe processing and disposal of waste, the experiences of foreign countries that have recorded high indicators in this direction.

**Keywords:** Ecology, bioeconomy, biomass, renewable energy, waste, green economy, zero waste, green tariff, green subsidy, circular economy, recycling.

### **Introduction**

Bioeconomy is an economy based on the use of biotechnologies using renewable biological raw materials. Development of bioeconomy sectors, including. increasing energy efficiency, efficient use of waste, development of renewable energy sources based on biomass, greening of the industrial sector, increasing the stability of agriculture, production of new food products, development of medical technologies [6].

Bioeconomy is generally recognized as a prospect for saving the Earth's energy resources, because among its main directions are the development of alternative energy sources and energy efficiency, efficient use of waste, development of biomass-based renewable energy, greening of the industrial sector, It covers increasing agricultural sustainability, production of new food products, development of medical technologies, use of biotechnologies based on



renewable biological raw materials, etc. In Uzbekistan, the legal framework for the development of bioeconomy has been formed, and long-term development strategies have been developed. "Strategy of the transition to the "green" economy of the Republic of Uzbekistan in the period of 2019-2030" [1], "Strategy of the development of agriculture of the Republic of Uzbekistan for the period of 2020-2030" [2] and other similar documents indicate that insufficient energy efficiency of the economy, lack of rational use of natural resources, slowness of technology renewal, and lack of active participation of small businesses in the introduction of innovative solutions for the development of the "green" economy prevent the achievement of the priority goals of sustainable development of the national economy.

### **Literature Analysis**

The concept of bioeconomy is interpreted differently by scientists and experts. According to D.N. Lyzhin, bioeconomy: a) is one of the main innovative areas of sustainable development of the country's economy; b) relies on the achievements of the "biotechnological revolution" of the late 20th and early 21st centuries; v) is based on the principle of cluster approach, public-private partnership and integration of technological platforms. The economy of the new technological order - bioeconomy should be based on the principles of sustainable harmonious development of the "economy-society-biosphere" system, which solves the problems of growth and self-organization of the old model [4].

### **The Main Part**

Estimates show the potentially significant impact of the bioeconomy on growth, competitiveness and job creation across the entire biomass value chain [5]. The priority areas of bioeconomy development in Uzbekistan can be defined as:

1. Agriculture, fisheries and forestry;
2. Biomedicine, biopharmaceuticals and biodiagnostics;
3. Bioenergy (use of renewable energy);
4. Use of water-saving technologies when using water resources for irrigation.
5. Safe treatment and disposal of waste.



***Modern American Journal of Business,  
Economics, and Entrepreneurship***

**ISSN (E):** 3067-7203

**Volume** 01, Issue 08, November, 2025

**Website:** [usajournals.org](http://usajournals.org)

***This work is Licensed under CC BY 4.0 a Creative Commons  
Attribution 4.0 International License.***

The problem that is becoming one of the most urgent environmental issues in the world is the problem of waste. According to the analysis, the annual increase of household and industrial waste in recent years has a negative impact on the ecological stability of the earth. According to the data, about 900 types of waste are currently registered. 11,250,000 tons of waste are generated on Earth every day. This means a "mountain" of waste 3 kilometers high. 99% of the products we buy end up in the waste bin less than 6 months after their expiration date. The world's population is growing by 1.5-2% every year, and the amount of produced waste is increasing by 6% [7].

In Uzbekistan, it is necessary to ensure ecological safety, improve the ecological situation, prevent the harmful effects of waste on human health, create favorable conditions for the rational use of natural resources, improve the quality of sanitary and ecological conditions, and waste processing. complex measures are consistently implemented.

In particular, in Uzbekistan, new procedures and mechanisms will be introduced based on the principles of "zero waste" in the field of work related to household solid waste. This is defined in the decision of President Shavkat Mirziyoev dated May 31, 2023 "On changing the field of ecology and environmental protection". The decision envisages separate collection and removal of household waste by type. It is planned to introduce the practice of circular economy in the field - maximum recycling or incineration of newly generated waste without sending it to landfills. The surplus of heat or electricity obtained as a result of incineration of waste is directed to meet the needs of the population and production in the existing energy and communication networks at the expense of payment, including using the "green tariff". In order to increase the efficiency of the new system, it is planned to introduce a system of allocation of "green subsidies" from the state budget [3].

### **Analysis and results**

Every country that cares about the health of its population and nature protection has developed a strategic state policy on waste processing. For disposal or processing of waste, first of all, it should be sorted, that is, plastic should be separated, cardboard and paper separately, and organic matter should be



***Modern American Journal of Business,  
Economics, and Entrepreneurship***

**ISSN (E):** 3067-7203

**Volume** 01, Issue 08, November, 2025

**Website:** [usajournals.org](http://usajournals.org)

***This work is Licensed under CC BY 4.0 a Creative Commons  
Attribution 4.0 International License.***

---

collected separately. We will consider how this system works on the example of Switzerland, the most environmentally friendly country in the world, and Singapore, which is considered the most developed country.

Homeowners who move into a new home in Switzerland are mailed a guide detailing how to deal with waste, what to throw out when and where. Each apartment has a special container for sorting it, depending on the type of waste. Such containers are classified by color. Recyclable waste is separated separately, and non-recyclable waste must be put in bags that cost 2 francs (28,042 soums) and taken to a specially designated place. It is also necessary to obtain a separate permit to go to the waste disposal point (such a permit is issued by the local administration only to citizens who have paid the waste tax). Everything in public dumps is exaggerated. A container with the inscription "thank you very much" is allocated for putting old clothes and shoes (they are distributed to the homeless and needy). In Switzerland, 80% of waste is fully recycled. A person who throws waste in an unauthorized area will be fined heavily. The population is given information about eco-culture and proper waste separation right from school. Pupils write essays on topics such as "Where to throw Penoplass?" "How is plastic disposed of?" [8].

In Singapore, the waste separation system was fully implemented in 2014. According to him, all apartment buildings have two waste pipes. In the kitchen of each apartment, a window opens to this pipe. Recycled products (glass, plastic, paper and cardboard) are thrown into one pipe, and non-recyclable ones into the other. Strongly protected pipes prevent the appearance of excessive unpleasant odors and the accumulation of insects. The pipelines go underground to the central and single landfill. The implementation of this method has led to a significant reduction in road costs for waste transportation. Recyclable waste is recycled, unusable waste is incinerated, and the remaining ash is transported to the artificial island of Semakau, 8 km from Singapore. At first glance, this island does not look like a landfill. Despite the fact that the island is surrounded by a special fence to prevent water pollution, the cleanliness of the water and air here is regularly monitored. Around the island, local residents can freely bathe and fish [9].



***Modern American Journal of Business,  
Economics, and Entrepreneurship***

**ISSN (E):** 3067-7203

**Volume** 01, Issue 08, November, 2025

**Website:** usajournals.org

***This work is Licensed under CC BY 4.0 a Creative Commons  
Attribution 4.0 International License.***

---

### **Conclusions and suggestions**

In conclusion, the problem of waste is one of the urgent problems in the world. To solve this problem, projects on waste processing and their proper use are being considered, and many waste recycling enterprises are being established. In addition, separate containers for plastics, paper and other types of waste are being placed in our country for separate collection of waste by type. Waste separated by this method is sent to enterprises for processing. But we are not wrong to say that the biggest task in waste processing and their proper use is the responsibility of every person on earth, including our country. Our task is to prevent wastage and dispose of the waste we generate in a specified order, separated by types, and dispose of the waste in waste containers. If we fulfill all the tasks set for us, we will make our contribution to solving the waste problem.

### **References**

1. Decision of the President of the Republic of Uzbekistan dated October 4, 2019 "Strategy of the transition to the "green" economy of the Republic of Uzbekistan in the period 2019-2030".
2. Decree of the President of the Republic of Uzbekistan dated October 23, 2019 "On approval of the strategy for the development of agriculture of the Republic of Uzbekistan for 2020-2030".
3. Decree of the President of the Republic of Uzbekistan dated May 31, 2023 "On measures to transform the field of ecology and environmental protection and organize the activities of an authorized state body".
4. Lyzhin D.N. Prospects for the development of bioeconomy in the context of globalization // Problems of national strategy. P.79-94 // [Electronic resource] /URL: <https://riss.ru/images/pdf/journal>. (12.05.2019).
5. Turobova Kh. and Kayimova Z. Development factors of bioeconomy in Uzbekistan // Economics: analyzes and forecasts. Tashkent. 2022 year.
6. <https://www.bioeconomy.eu>
7. <https://world-statistics.org/>
8. <https://sustainabledevelopment.un.org/content/switzerland/waste>
9. <https://www.nea.gov.sg/our-services/waste-management>