International Journal of Education, Social Science & Humanities.
Finland Academic Research Science Publishers
ISSN: 2945-4492 (online) | (SJIF) = 8.09 Impact factor
Volume-13| Issue-7| 2025 Published: |22-07-2025|

WASTE BUSINESS: CHALLENGES AND OPPORTUNITIES

https://doi.org/10.5281/zenodo.17116586

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Abstract

This article provides information on the development of waste business and waste processing technology in solving environmental problems in Uzbekistan.

Keywords

waste management, recycling, circular economy, green business, sustainability.

In recent decades, the problem of waste management has become one of the most pressing global problems. Rapid urbanization, industrial growth, and consumerism have led to an unprecedented increase in waste generation. However, this problem has also opened up new opportunities in the field of waste business - combining environmental protection with economic interests. In Uzbekistan, the production of products by industrial enterprises is accompanied by a growing number of negative impacts on the environment. We can open business areas by recycling hazardous waste from business entities and industrial enterprises and household waste from the population

Waste business means the collection, processing, recycling, and disposal of various waste for economic purposes. Instead of considering waste as an unnecessary by-product, it is now viewed as a valuable resource that can produce energy, raw materials, and even innovative products. Recycling plastic products, processing expired food products, and creating mineral fertilizers from waste will develop entrepreneurship[1].

Introduction of recycling industry technologies. In particular, paper, plastic, glass, and metals are widely collected and processed into secondary raw materials.

Energy from waste: Modern technologies allow converting waste into electricity, heat, and biofuels.

Circular economy: Many countries use circular business models, in which waste from one industry becomes an input for another. With unorganized,

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unplanned and improper use of limited raw materials, an abundant amount of waste is being produced, which is harmful to our environment and ecosystem. While traditional linear production lines fail to address far-reaching issues like waste production and a shorter product life cycle, a prospective concept, namely circular economy (CE), has shown promising prospects to be adopted at industrial and governmental levels. CE aims to complete the product life cycle loop by bringing out the highest values from raw materials in the design phase and later on by reusing, recycling, and remanufacturing. Innovative technologies like artificial intelligence (AI) and machine learning(ML) provide vital assistance in effectively adopting and implementing CE in real-world practices[2].

E-waste management: With technological progress, e-waste recycling has become one of the most profitable but difficult industries.

Lack of infrastructure in developing countries.

High cost of advanced recycling technologies[3].

Insufficient public awareness of waste separation.

Environmental hazards resulting from uncontrolled landfills.

Creation of new jobs in the field of recycling enterprises and waste logistics.

Development of green technologies and innovations.

Attracting foreign investment in sustainable projects.

Reducing environmental pollution and improving public health.

Uzbekistan is actively working to develop the waste management sector. New projects are being implemented to establish modern recycling enterprises, introduce waste separation systems, and attract private investors. The government supports public-private partnerships that will help transform waste management into a profitable and sustainable business model.

Conclusion. Waste generation is not only an environmental necessity, but also an economic opportunity. By transforming waste into resources, societies can reduce environmental pressure, create new industries, and move towards sustainable development. With the right policies, investments, and innovations, the waste sector can become one of the driving forces of the green economy.

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