
**FINANCING MECHANISMS AND SOURCES OF GREEN ENTREPRENEURSHIP
IN UZBEKISTAN**

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Abstract

This article provides a comprehensive analysis of the theoretical foundations, practical mechanisms, and main sources for financing the green economy and green entrepreneurship in Uzbekistan. The legal and institutional framework of green economy policies, the financing system involving both the public and private sectors, and the role of international financial institutions are examined. The analysis identifies existing opportunities, constraints, and prospective directions in the green financing system. Additionally, through a comparative analysis with international experience, effective recommendations are developed for practical implementation in Uzbekistan.

Keywords: Green economy, green finance, sustainable development, renewable energy, ecological innovations, tax incentives, green bonds

Introduction

In the 21st century, one of the key priorities of economic policy is balancing economic growth while ensuring environmental sustainability. From this perspective, the concept of a green economy is recognized worldwide as one of the strategic development models [1].

The green economy is a system that ensures economic growth through the rational use of natural resources, the introduction of energy-efficient technologies, and the minimization of waste [2]. This approach not only reduces environmental risks but also ensures social sustainability by creating new jobs, encouraging innovation, and fostering “green thinking” in society [3].

In recent years, the green economy has become central to national development policy in Uzbekistan. The “Transition to a Green Economy Strategy (2019–2030)” adopted in 2019 and Presidential Decree No. PF–347 of 2022 provided an institutional foundation for reforms in this area [4].

Transitioning to a green economy requires the introduction of new financing instruments within the country’s economic system. This increases the relevance of the concept of “green finance.” The main goal of green finance is to attract funds for developing economic activities in environmentally sustainable directions [5].

Furthermore, the formation of a green finance system aligns with Uzbekistan’s international obligations, including the United Nations Sustainable Development Goals (SDGs). Within the framework of state policy, major programs are being implemented to improve energy efficiency, introduce renewable energy sources, and recycle waste [6].

THEORETICAL FOUNDATIONS AND LITERATURE REVIEW

The concepts of green economy and green financing have been widely studied in academic literature, with their theoretical foundations beginning to take shape in the 1990s. International organizations, including the OECD, UNEP, and the World Bank, define the green economy as an “environmentally responsible, inclusive, and innovative economic development model” [7]. Green finance refers to the financing of economic activities in environmentally sustainable directions. According to the World Bank, green finance is “the practice of allocating financial resources in economic decision-making while considering ecosystem and climate risks” [8].

From this perspective, the green finance system performs four main functions:

1. Supporting sustainable investments;
2. Reducing environmental risks;
3. Encouraging green innovations;
4. Enhancing energy efficiency [9].

Some researchers describe the green economy through the “triple bottom line” concept — achieving economic profit, social sustainability, and environmental protection simultaneously [10].

International experience shows that for green financing to be effective, cooperation between state policy, the regulatory framework, the banking system, and the private sector is crucial. For example, South Korea’s “Green Growth Strategy,” implemented since 2009, is supported by state grants, subsidies, and green bonds [11].

The European Union, under the “EU Green Deal,” has established a green banking system and plans to allocate €1 trillion for sustainable projects by 2024 [12].

These experiences serve as important examples for Uzbekistan, where the green finance system is still under development. Scientific analyses and practical studies in this field are currently of high academic and practical significance.

METHODOLOGY

The study applied a systematic approach to economic analysis and content analysis methodology. These methods enabled a comparative analysis of economic policy documents, financing programs, and international experiences [13].

The study relied on the following data sources:

- Reports of the Ministry of Economic Development and Poverty Reduction of Uzbekistan (2019–2024);
- “Green Finance Reports” by the World Bank, EBRD, and Asian Development Bank (ADB);
- Decrees and resolutions of the President of Uzbekistan;
- Data from the State Statistics Committee.

Research methods included:

1. Systematic analysis — to study institutional relations in green economy policy and finance;
2. Comparative analysis — to compare Uzbekistan’s experience with international practices;
3. Indicator analysis — to evaluate key indicators of the green economy (energy efficiency, investment share, recycling rate, etc.) [14].

This methodology allowed for identifying opportunities, challenges, and prospective directions in Uzbekistan’s green finance system.

DISCUSSION AND RESULTS

The legal framework for developing the green economy in Uzbekistan has been established over the past five years. The “Transition to a Green Economy Strategy (2019–2030)” defined sustainable development directions for the country [4].

This strategy includes seven priority areas:

1. Improving energy efficiency;
2. Developing renewable energy sources;
3. Creating a waste recycling system;
4. Efficient water resource management;
5. Implementing green transport systems;
6. Ecological agriculture;
7. Supporting green innovations [2].

Additionally, the 2022 “Sustainable Development Strategy until 2030” aligned national policy directions with the SDG goals [15].

Financing of green entrepreneurship in Uzbekistan is carried out through the following sources:

- State budget;
- International financial institutions (UN, World Bank, EBRD, ADB);
- Commercial banks and private sector;
- Green bonds and grants [16].

In 2023, the “Green Investment Fund” was established through the cooperation of the Revival and Development Fund and the Ministry of Economy and Finance. This fund plays a key role in financing projects in green energy, waste recycling, and water-saving irrigation systems [17].

Table 1. Investments in the Green Economy in Uzbekistan, 2019–2024

Year	State Investments (\$ mln)	International Finance (\$ mln)	Private Investments (\$ mln)	Total (\$ mln)
2019	120	250	60	430
2020	150	280	75	505
2021	180	350	110	640
2022	220	410	150	780
2023	260	470	180	910
2024	300	500	220	1020

Source: Ministry of Economic Development and Poverty Reduction, 2024 [18].

According to the table, green financing increased 2.4 times from 2019 to 2024, indicating growing attention to environmentally sustainable directions alongside economic growth.

In 2021, amendments to the Tax Code provided profit tax exemptions of up to five years for renewable energy producers, and a 50% VAT discount for producers with ecological certification [6].

Additionally, import of energy-efficient equipment is exempt from customs duties, and preferential credit systems exist for green projects. For example, Orient Finance Bank, in cooperation with the EBRD, implements the “Green Economy Financing Facility (GEFF)” program worth €100 million [19].

International experience shows that green finance systems are based on various models, which provide important lessons for Uzbekistan.

- EU Green Deal supports green investments and plans to allocate €1 trillion for sustainable development projects by 2024, mainly for green transport, renewable energy, and energy efficiency programs [12].
- South Korea’s “Green Growth Strategy” finances innovative technologies through grants and subsidies; by 2023, green financing accounted for 6.4% of GDP [11].
- China’s green banking system, launched in 2016, saw the share of green loans exceed 10% of total bank portfolios by 2023 [20].
- Kazakhstan passed the “Green Economy Law” in 2013, aiming to reach 15% renewable energy by 2025, with a “Green Finance Centre” established in cooperation with EBRD and ADB [21].

The analysis shows that Uzbekistan’s green economy policy and green entrepreneurship financing system are gradually taking shape, with state policy, international cooperation, and private sector participation playing crucial roles [22].

Strategic documents, such as the “Transition to a Green Economy Strategy (2019–2030)” and the “Sustainable Development Strategy until 2030,” have provided a legal and institutional basis for the country [2][15]. Tax incentives and subsidies encourage enterprises to adopt resource-efficient and eco-technologies.

However, practical challenges remain:

- Numerous legal documents exist, but enforcement is fragmented;
- Green investments account for less than 5% of total investments;
- Human capital and the innovation environment are insufficient [3][6].

From 2019 to 2024, green financing nearly 2.5 times increased (from \$430 million to \$1020 million), driven by government and international contributions.

Observed trends include:

- State investment share increased from 27.9% to 29.4%;
- Private sector share increased from 14% to 21%;
- EBRD and ADB allocated \$700 million for renewable energy projects [5][18].

These figures indicate that Uzbekistan’s green financing system has entered a practical implementation phase.

Programs such as the “Green Economy Financing Facility (GEFF)” and “Green Startup Accelerator,” implemented in cooperation with the UN, GIZ, and EBRD, are fostering a culture of green entrepreneurship. By 2024, more than 60 startups in ecotechnology have started operations [7][19].

The economic impact of international cooperation includes enabling Uzbekistan to implement new financial instruments — green bonds, carbon credit systems, and hybrid financing models.

CONCLUSION

The study concludes that although Uzbekistan's green economy and green entrepreneurship financing system is still in its formative stage, it has high potential to become a key driver of the national economy in the coming years.

Key Conclusions:

1. The legal framework (decrees, strategies, laws) created by the state serves as an institutional foundation for the green economy.
2. Investments involving international financial institutions are increasing annually, enhancing the economic efficiency of green projects.
3. Tax incentives and preferential credit systems encourage entrepreneurs to adopt ecological technologies.
4. Developing the green financial market (green bonds, grants, investment funds) will increase the country's international investment attractiveness.

However, some constraints remain — human resource shortages, weak project evaluation mechanisms, and low coordination between financial institutions — requiring further improvement in the sector.

RECOMMENDATIONS

1. Establish a Green Finance Center: Create a unified information database of grants, loans, and investments through the “UzGreenFinance Hub” in cooperation with international organizations.
2. Introduce hybrid financing models: Combining state funds with international grants can effectively support small and medium-sized business projects.
3. Align the green certification system with international standards: Develop a national certification system in accordance with ISO 14001 and EU Green Deal requirements.
4. Strengthen the financing efficiency evaluation system: Implement outcome indicators for each international or state project.
5. Create a green banking system: Establish special “Green Finance Department” units in commercial banks to provide long-term, low-interest loans for environmental projects.
6. Develop research and human capital training systems: Introduce “Green Economy and Finance” courses at higher education institutions to enhance future specialist capabilities.

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