

Green Finance: Green Bonds and Financing for Sustainable Development

No‘monjonova Shokhsanam Muzaffarovna¹

¹Gulistan State University, Faculty of digital economy and innovation, A student of economics
nomonjonovashohsanam221@gmail.com

Abstract:

this article analyzes the nature of green bonds, one of the main areas of environmental finance, how they serve the goals of sustainable development and their role in financing. Opportunities to attract investment in projects that have a positive impact on the environment through green bonds are explored.

Keywords: environmental finance, green bonds, sustainable development, financing, environment, green economy, green bond issuance.

INTRODUCTION

In recent years, global environmental problems and climate change issues have shaped new approaches to the financial system. Among them, the concept of "ecological finance" appeared and served to harmonize economic growth and environmental protection. One of the important instruments of environmental finance is green bonds, which are debt securities issued for special purposes, i.e., to finance projects that serve environmental and sustainable development. These are purchased by investors, and the collected funds are directed to the creation of renewable energy sources (solar, wind), the construction of energy-efficient buildings, the construction of waste treatment systems, water supply, and treatment facilities, and the creation of ecological transport (for example, electric cars or subway systems).

According to the decision of the President of the Republic of Uzbekistan dated December 2, 2022, No. PQ-436 "On measures to increase the effectiveness of reforms aimed at the transition of the Republic of Uzbekistan to a "green" economy by 2030", the following works and systems are planned:

- reduction of greenhouse gas emissions per unit of GDP by 35% from the level of 2010;

- increase the production capacity of renewable energy sources by 15 GW and increase their share to more than 30% of the total volume of electricity production;
- increase energy efficiency in the industrial sector by at least 20%;
- reducing the volume of energy consumption per unit of gross domestic product by 30%, including expanding the use of renewable energy sources;
- significantly increase the efficiency of water use in all sectors of the economy, introduce water-saving irrigation technology on an area of up to 1 million hectares;
- by planting 200 million saplings per year and increasing the total number of saplings from 1 billion, expanding green spaces in cities by more than 30 percent;
- increase the index of reserves of the republican forest fund to more than 90 million cubic meters¹.

The main goal of the transition to a "green" economy is to create a sustainable and ecologically sound development model that will help preserve natural resources, reduce emissions of toxic substances, and ensure the lives of future generations. Also, energy and environmental problems remain relevant nowadays. Therefore, many solar and wind power plants are being built in our country, and energy-saving technologies are being introduced in economic sectors (Table 1).

Table 1. Indicators of use of alternative energy in Uzbekistan

Indicator	2023	2024 (forecast)
Alternative energy production	7.05 billion kWh	13 billion kWh
Its share in the total energy balance	9.7%	15-18%
Solar power	-	2000 MVt
Wind energy capacity	-	600 MVt
Energy storage systems	-	300 MVt

The state program for the implementation of the development strategy of New Uzbekistan for 2022-2026 stipulates the transition to a "green" economy in industrial sectors and the development of an energy saving program. Based on this, it was planned to save 3.9 billion cubic meters of natural gas, 4 billion kilowatt hours of electricity and 21 thousand tons of oil products in 25 strategically important industries. As a result, it is aimed to reduce the share of energy in the cost of each product up to 20 percent.

From June 1, 2023, a system of "green certificates" confirming that products are produced using environmentally friendly energy and technologies was introduced, and as a measure of state support for the reduction of damage to nature, a gradual regulation of the emission of greenhouse gases was introduced. It was also proposed to expand the list of substances and increase the fee rate by fully implementing the "polluter pays" principle.

Analysis and results:

Despite the fact that the direction of the "green" economy and the field of environmental finance are still new in our country, special attention is being paid to the issues of increasing scientific research and implementing innovative projects. However, in 2021, commercial banks offered green loans for the first time, and in 2023, the possibility of issuing the first green bonds was explored. In the near future, it is planned to attract funds to the ecological infrastructure on the basis of public and private partnership.

¹ <https://lex.uz/uz>

The results of the study of foreign experience in the formation and development of the green economy in Uzbekistan examine the principles, methods, and tools of the development of the green economy on a global scale, and their application to the economy of our country is being analyzed. Special attention is paid to the experience of Germany, Switzerland, China, and other countries with developed green economies. The results highlight the use of renewable energy sources, increasing energy efficiency, reducing greenhouse gas emissions, developing circular agriculture, and other key areas of green economy development. Research shows that the successful implementation of the green economy in Uzbekistan requires a complex and systematic approach, as well as active cooperation of the state, business, and society (Table 2).

It is important to take into account local characteristics and needs when adapting foreign experience in the formation and development of the green economy to the conditions of Uzbekistan. Today, green bonds are the fastest-growing segment of the financial markets. The leading countries in the green bond market are the USA, China, France, and Germany. For example, the Chinese government has implemented billions of dollars in green infrastructure projects through green bonds. It is worth mentioning that in 2023, the issuance of green bonds worldwide will exceed 600 billion US dollars.

Also, large corporations - for example, Apple, Tesla, or Volkswagen - are issuing green bonds, attracting funds to make the production process carbon neutral and create new ecological products. For many years, organizations such as the World Bank and the European Investment Bank have been issuing green bonds and financing climate-friendly projects in developing countries.

Table 2. Funds allocated to the green economy.

Funding source	Quantity	Focused Areas
State budget (2024)	34,1 billion soums	Agriculture, water management, transport
GGGI and KOICA (Aral Sea GRIP)	1 billion US dollars	Sustainable agriculture, green financing (mainly in the territory of the Republic of Karakalpakstan)
GIZ (Germany)	3 million euros	Industry improvement, carbon certification
GGGI grant	6.5 million US dollars	Sustainable agriculture, forestry, carbon market

Uzbekistan joined the Global Methane Pledge initiative in May 2022 as part of the international forum on poverty reduction held in Bukhara. The initiative means that its members agree to take voluntary actions to contribute to a collective effort to reduce global methane emissions by at least 30% below 2020 levels by 2030.

On the other hand, in developing countries, there is no clear legal framework for issuing green bonds and their monitoring, services related to green bonds (rating, audit, monitoring systems) are not yet widespread, green projects can be long-term and risky, and this brings low returns for investors, many enterprises and state organizations do not have enough knowledge about green finance opportunities, these are just some of the problems in this field.

Conclusion:

In conclusion, green bonds are an effective financial instrument for financing environmental projects. Through them, not only is ecological protection ensured, but economic stability can also be achieved. In this direction, Uzbekistan needs to develop the green financial market by improving the legislation, creating guarantees for investors, and applying international experience. In the future, green bonds can become one of the main tools for achieving sustainable development goals.

Development of laws and standards that will ensure the issuance, control, and transparency of green bonds shortly in our country, organization of special rating agencies, financial technologies (fintech), and centralized registers for green bonds, allocation of tax incentives, grants or subsidies to issuers who have attracted funds through green bonds or investors who have invested in them, organization of training courses on environmental finance and green bonds for employees of enterprises, banks and government bodies, and the World Bank, European Bank for Reconstruction and Development (EBRD), It is necessary to establish cooperation programs on environmental financing with organizations such as the Asian Development Bank.

Increasing energy efficiency in every sector, and reducing energy costs in product production serves as a basis for the sustainable development of our country's economy.

References:

1. <https://cyberleninka.ru>
2. <https://president.uz>
3. <https://renessans-edu.uz>
4. <https://www.imv.uz>
5. <https://lex.uz>
6. <https://journal.bfa.uz>
7. <https://www.norma.uz>