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FORMS OF FINANCING GREEN PROJECTS IN THE ACTIVITIES OF COMMERCIAL BANKS

Karrieva Shakhnoza Safarbaevna
Assistant at Tashkent State University of Economics

Abstract:
The methods of financing green projects in the activities of commercial banks include various tools and approaches aimed at supporting environmentally sustainable initiatives. Key methods include providing green loans and loans, issuing green bonds, investing in green funds and structured financial products, as well as establishing specialized credit lines and programs. These tools allow banks not only to actively participate in the ecological transformation of the economy but also to act as a catalyst for sustainable development, contributing to reducing the carbon footprint and increasing energy efficiency in various sectors and regions.

Keywords: Green loans and credits, green bonds, investments in green funds, structured financial products, environmentally focused investment funds, specialized credit lines and programs.

INTRODUCTION

As of today, green financing is a complex system of institutions, measures, and tools within the banking sector aimed at promoting projects that enhance the social and environmental landscape worldwide. The challenge of implementing green financing is primarily linked to the necessity of transitioning to a green economic model, tasked with reshaping the approach to production-consumption from an outdated linear model to a circular economy based on resource renewability. The responsibility for this transition falls on the government, society, and businesses as the main drivers of the economy. Financial institutions, in turn, develop tools to help responsible businesses transition towards ecological sustainability and resilience.

Research Methodology

Types of green financing

"Green" bonds are debt securities that are issued with the condition that the proceeds will be used for environmental projects.

A carbon credit is a financial instrument for reducing greenhouse gas emissions. Essentially, it's proof that a company has cut its emissions in a sort of currency that the company can sell. Another company can then buy it. Those who hold purchased carbon credits have the right to receive allowances for greenhouse gas emissions above set limits. 1 carbon credit = 1 ton of CO_2 emissions.

Favorable "green" financing – a possibility for "green" projects to obtain financing on favorable terms.

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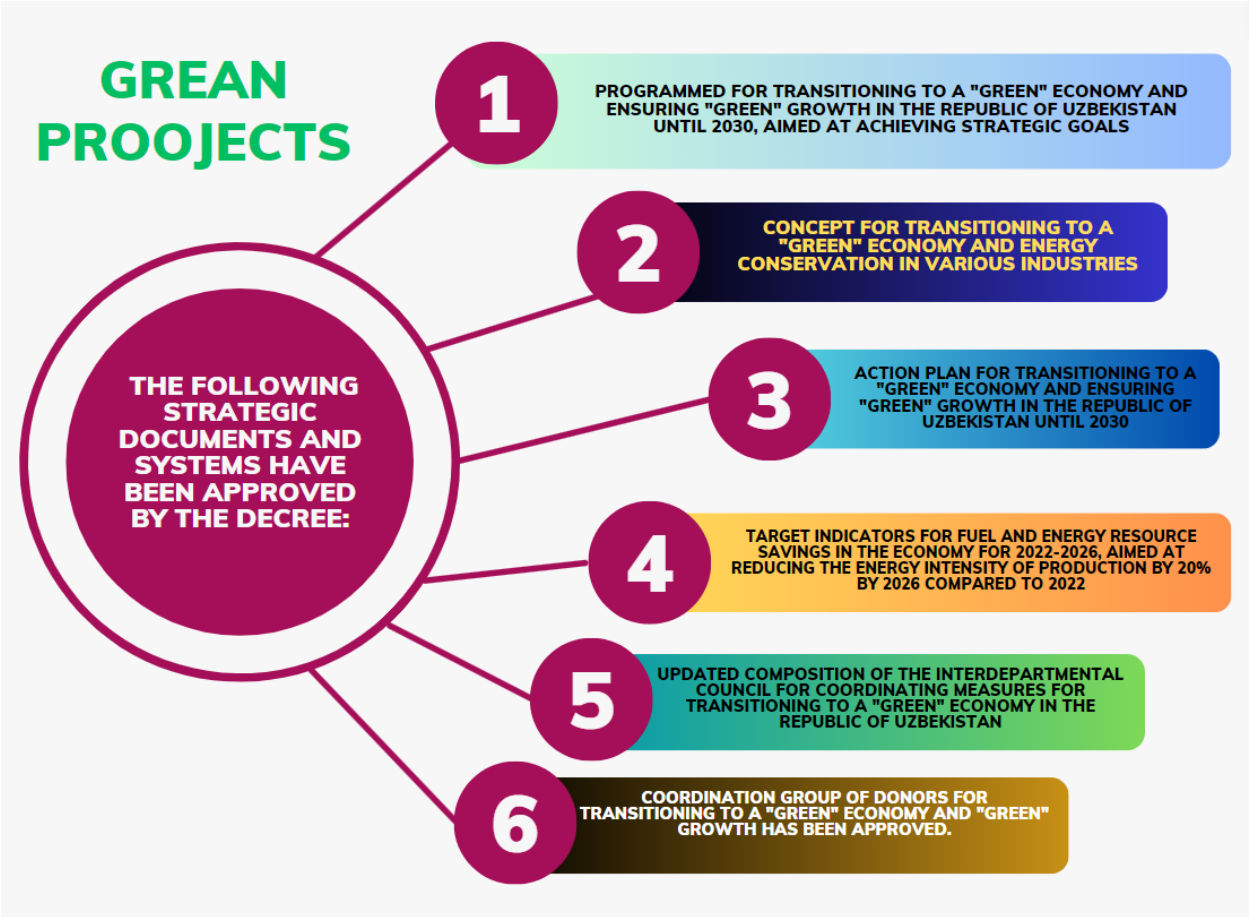
A "green" mortgage is a mortgage issued by banks for the construction and purchase of real estate properties that meet the criteria of "green" buildings. Typically, such a mortgage offers favorable terms, which is an attractive factor for both developers and subsequent buyers.

The decree of the President of the Republic of Uzbekistan dated December 2, 2022, No. PP-436 "On measures to increase the efficiency of reforms aimed at transitioning the Republic of Uzbekistan to a 'green' economy by 2030" has been adopted, (pic. 1).



Picture 1 – Green Project Implementation Roadmap

As part of this project, 6.1 million euros of grant funding from the European Union have also been secured to finance works that will be carried out from 2023 to 2025. Along with that, within the framework of the visit of the delegation of the Republic of Uzbekistan to France in October of this year, a preliminary agreement was reached on attracting 100 million euros within the project "Development and implementation of master plans for regions (cities) based on the principles of green economy". At the moment, "green" financing can be seen as a long-term strategy that initially requires certain costs and efforts, but within a reasonable planning horizon, it can become one of the key transformers of the financial market of the future, and as a result, one of the most effective, and importantly, accessible ways to protect the integrity and well-being of the planet and its inhabitants, (Pic. 2).

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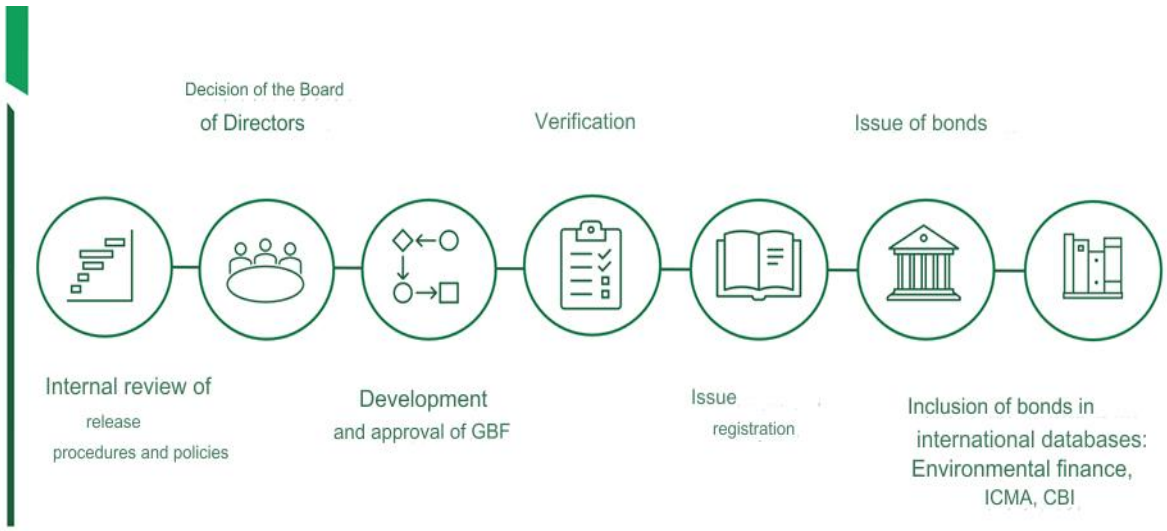
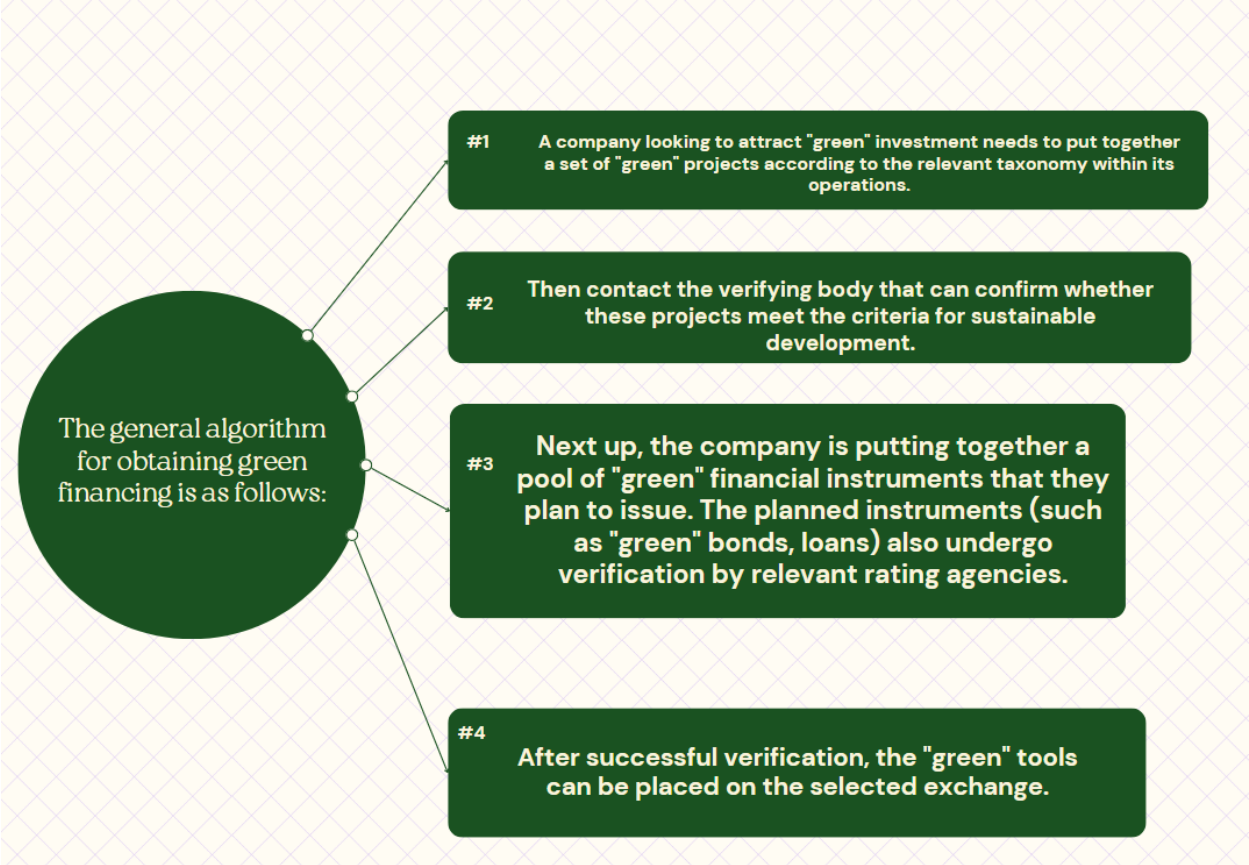


Picture 2 – The process of issuing green bonds

The process of obtaining "green" financing isn't complicated, but it does require a company to work out its policy on responsibility. Since businesses creating projects aimed at environmental activities and promoting social well-being can apply for the formation of "green" financial instruments and consequently receive "green" financing.



Picture 3 – The general algorithm for obtaining green financing is.

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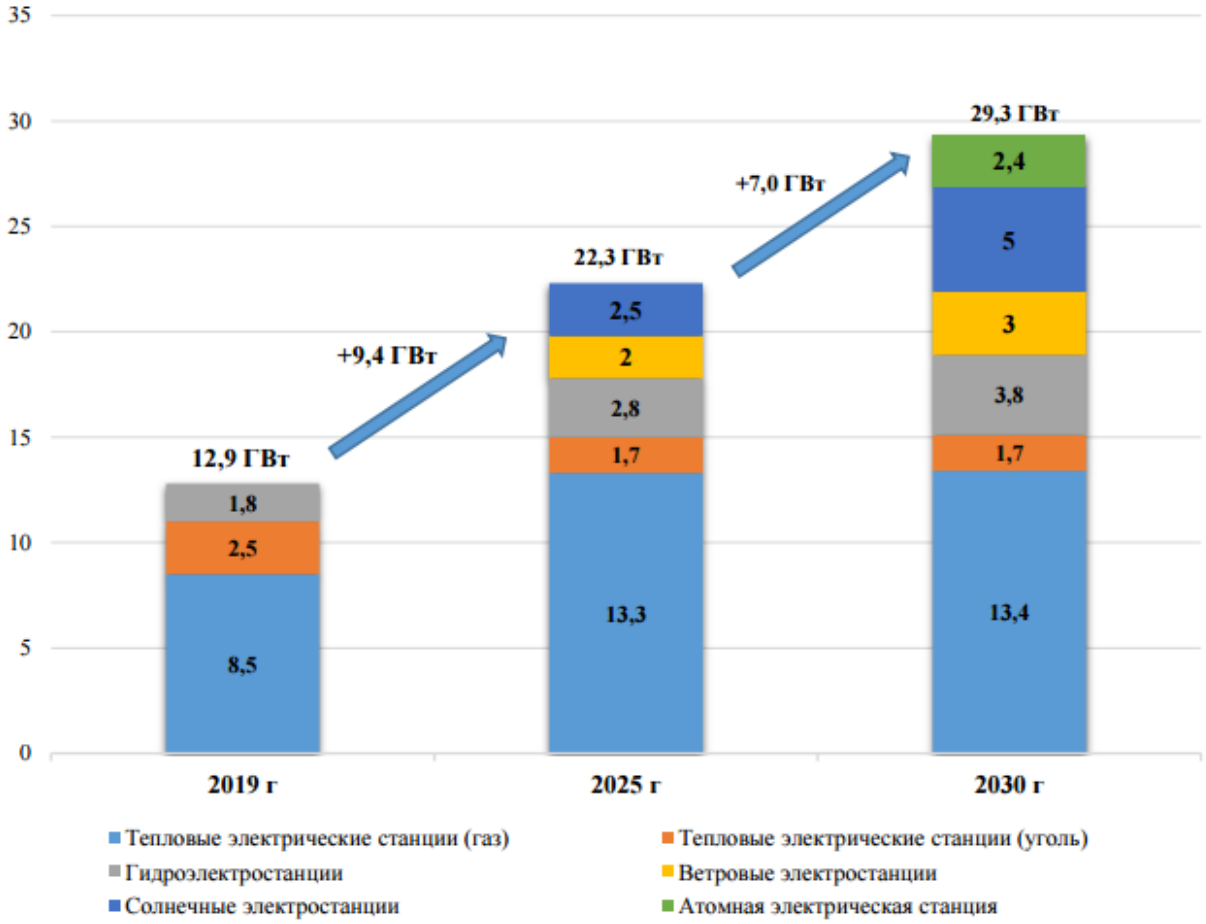
Green projects are mainly used in the construction of renewable energy plants. In recent years, great attention has been paid to green electricity projects in Uzbekistan and the projects are being implemented. Solar energy. According to the "Scaling Solar" program with the participation of the International Finance Corporation (IFC) for the construction of solar photovoltaic power plants (SPPs) within the PPP framework: (1) approval was granted by the Boards of Directors of the WB and IFC for the financing of a 100 MW SPP in the Navoi region; (2) a tender was announced for the construction of two 200 MW SPPs in the Samarkand and Jizzakh regions; (3) the construction project for the Sherabad I SPP has started along with tender works for Sherabad II in the Surkhandaryo region (Ministry of Energy of Uzbekistan and ABR); (4) preparatory work has commenced for SPP projects in the Bukhara (250 MW), Namangan (150 MW), and Khorezm (100 MW) regions; (5) an agreement with the French company "Total Eren SA" has been signed for the construction of a 100 MW SPP in the Nurabad district of the Samarkand region on May 13. Wind energy. An investment agreement has been signed between Uzbekistan and "Masdar" (UAE) for the implementation of a project to design, finance, construct, and operate a wind power plant with a total capacity of 500 MW in the Navoi region starting from June 10. Additionally, an agreement has been reached between the Ministry of Energy of Uzbekistan and ACWA Power (Saudi Arabia) for the construction of wind power plants in the Bukhara and Navoi regions with a total capacity of 1000 MW.

National strategies and programs. The government has approved the "Concept for Ensuring the Republic of Uzbekistan with Electricity for 2020-2030", which includes activities to modernize and reconstruct existing power plants, construct new ones using energy-efficient electricity production technologies; improve electricity metering systems; develop renewable energy sources; legal reforms to improve tariff policies and transition to the wholesale market. By 2030, the following is planned: (1) increase capacity from 12.9 to 29.3 GW, and electricity generation from 63.6 to 120.8 kW/h; (2) reduce natural gas consumption from 16.5 to 12.1 billion cubic meters; (3) reduce electricity transmission losses to 2.35% and distribution losses to 6.5% (1.85 times lower than in 2019).



Picture 4 – "The concept of providing the Republic of Uzbekistan with electrical

Similarly, there are other projects being carried out by banks in Uzbekistan, such as "green" credit products for individuals.


“Green comfort – 1 MVt gacha energiya tejaydigan va qayta tiklanadigan energiya manbalarini sotib olish uchun”;


“Green product online – JOYDA ilovasi orqali hujjatlarsiz va uchinchi shaxslar kafilligisiz energiya tejaydigan texnologiyalarni xarid qilishingiz mumkin”;


“Green consumer loan – micro and small hydroelectric power plants up to 1 MW, we should purchase energy resources that produce and recycle energy;


“Green product – Energiya tejaydigan va qayta tiklanadigan energiya manbalarini xarid qilish”;


“Green mortgage – Buy an apartment in the primary or secondary markets.

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In Uzbekistan, the World Bank allocates 46.25 million US dollars for the "green economy" project. A presidential decree has been signed regarding the implementation of measures for the project "Utilization of innovative carbon resources for energy solutions" under the World Bank's participation.

In accordance with your request, the program to implement the tasks set for the transition to a "green economy" until 2030 and ensure "green growth" is being implemented in Uzbekistan, particularly aiming to promote the low-carbon development of the national economy, especially industry. In this regard, the "Innovative Carbon Resource Utilization for Energy Transition" (iCRAFT) project is being carried out in Uzbekistan to achieve these goals, with the World Bank allocating a sum of 46.25 million US dollars for this purpose. The project will be implemented in the republic during the years 2023-2028.

Review literature

The review of the literature reveals a comprehensive analysis of existing research findings related to the topic. Previous studies have highlighted the significance of understanding the complexities surrounding this area of inquiry. Moreover, a common theme emerges from the literature, emphasizing the need for further investigation and empirical evidence to strengthen our knowledge in this field. Researchers have offered valuable insights and theoretical frameworks that lay the groundwork for future exploration and advancements in this critical area of research. Several scientific and literary works were studied below.

Banking on Sustainability: Abacus and the Sustainable Banking Initiative" by John A. Talbott Description (2013), this book explores the strategies and initiatives that banks use to support sustainable development. The author examines how banks can reduce their ecological footprint and contribute to environmentally sustainable projects;

"Green Finance and Investment: Mapping Channels to Mobilise Institutional Investment in Sustainable Energy" edited by Nick Robins (2017 y.), this book provides an overview of various channels and mechanisms for green financing that can mobilize institutional investments in sustainable energy. It includes an analysis of the role of banks and other financial institutions in this process.

"Sustainable Banking: Managing the Social and Environmental Impact of Financial Institutions" by Olaf Weber and Blair Feltmate (2012), the book discusses strategies and practices of sustainable banking, including the assessment and management of social and environmental impacts of financial institutions. It also talks about methods of integrating environmentally sustainable practices into financial strategies;

"The Green Bundle: Pairing the Market with the Planet" by Magali A. Delmas and David Colgan (2018), the book explores the interaction between market mechanisms and sustainable development, showing how companies and financial institutions can use market tools to promote environmentally sustainable innovations and projects;

"Climate Finance: Regulatory and Funding Strategies for Climate Change and Global Development" edited by Richard B. Stewart, Benedict Kingsbury, and Bryce Rudyk

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(2017), the book discusses regulatory and financial strategies in the field of climate finance. It looks at different approaches to financing projects for climate adaptation and greenhouse gas emissions reduction, including the role of banks and international standards;

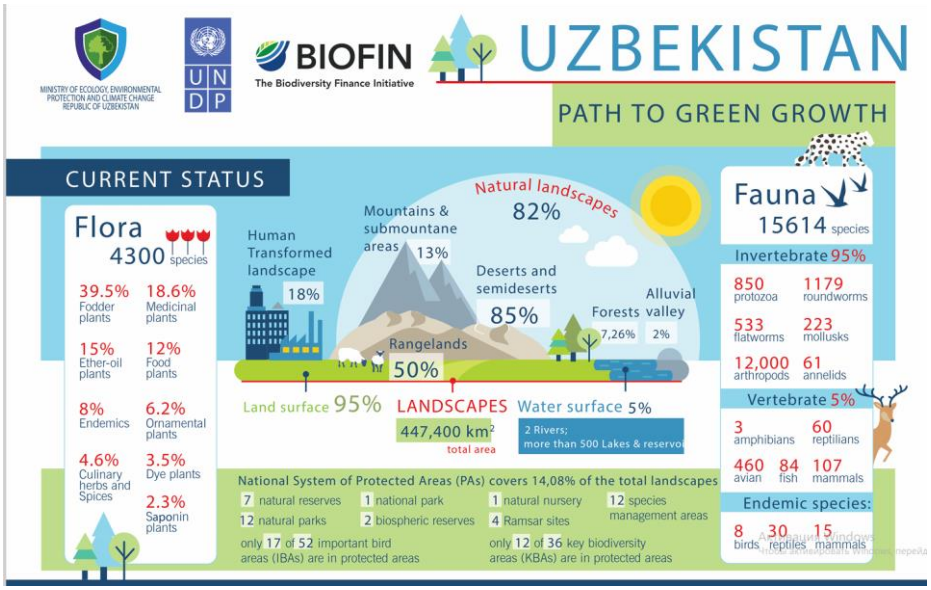
"Green Banking: An Evaluation of Banking Practices and Challenges in Achieving Environmental Sustainability" by Md. Kabir Hasan, M. Kabir Hassan, and Michael T. Skully (2015) the monograph explores green banking practices and challenges that banks face in achieving environmental sustainability. The authors analyze various aspects such as green loans, green bonds, investments in renewable energy, and environmental risk management;

"Green Banking Initiatives: A Review and Future Research Agenda" by Reza Tajaddini and Marzieh Zarin-Nejadan (2016), the article provides an overview of green initiatives in the banking sector, including an analysis of banks' motivations to participate in green projects, types of green financial products, and challenges they face. It also discusses the potential for future research in this area;

"The Role of Banks in Green Finance: A Focus on Green Bond Issuance" by Lars Hornuf, Matthias Schmitt, and Markus Schmid (2018), this article explores the role of banks in promoting green finance, with a special focus on issuing green bonds. The authors analyze factors influencing banks' decisions to issue green bonds and the effectiveness of such instruments in achieving environmental goals.

Analysis and Results

4 projects worth 5.9 billion soums were financed by the Ministry of Innovative Development. As a practical result of this, the Institute of Materials Science of the Russian Academy of Sciences developed the first prototype of a thermochemical reactor with a capacity of 10 kW for the production of hydrogen in "Modelica" and "Solid works flow simulation" programs.



Picture – 5

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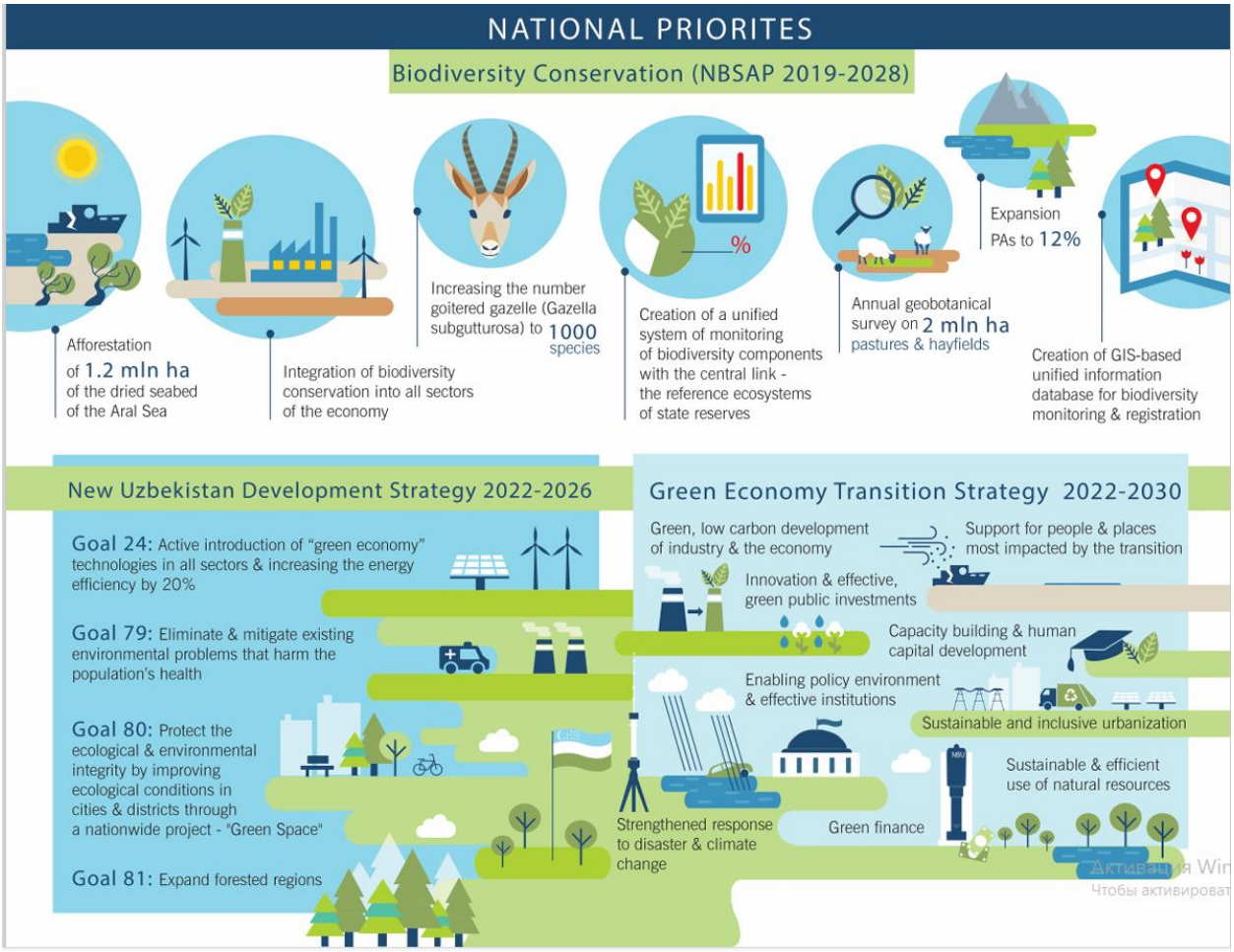
In the field of energy, a number of solar energy production projects have been developed in recent years, the first of which is the "Nur Navoi Solar" project, which was established in cooperation with the UAE company "Masdar", which will save 80 million tons of natural gas per year and 160 serves to prevent the release of a thousand tons of greenhouse gas. According to experts, if the opportunities in this field are fully utilized, 600 billion square hours of electricity will be produced, which is 8 times more than Uzbekistan's current electricity consumption. The biggest environmental problem in Uzbekistan is the Arol problem, and 71 measures worth 2.4 trillion soums, as well as 65 priority innovative projects worth 1.9 trillion soums, are being implemented to prevent this problem. In this regard, projects such as prevention of soil degradation, planting of plants that prevent migration of salts have been established (pic 6).



Picture 6 – New Uzbekistan Development Strategy 2022-2026

As a solution to the above problems, the production of green technologies by most industrial enterprises and innovation centers is gaining popularity day by day.

Conclusions

Green projects in the modern banking industry play a key role in the sustainable development strategy. Banks are increasingly introducing green financial products,

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such as green loans and green bonds, not only to reduce the environmental impact of their operations, but also to support clients in implementing environmentally sustainable projects. This direction not only helps to improve the environmental situation in the world, but also opens up new opportunities for economic growth and social responsibility of banks.

In the future, green banking projects will continue to play an important role in achieving global environmental and economic goals. The joint efforts of banks, government agencies and public organizations can help create a sustainable and enabling environment for both current and future generations.

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