"GREEN FINANCING AND ENVIRONMENTAL EDUCATION: THE IMPACT OF DIGITAL INNOVATIONS"

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Annotation: This article analyzes the interrelation between green financing and environmental education, as well as the impact of digital innovations on these processes. The aim is to reveal the role of innovative approaches in achieving sustainable development goals.

Keywords: green financing, green economy, environmental education, green bonds, environmental lending, digital innovations, carbon units and carbon credits.

Annotatsiya: Ushbu maqolada yashil moliyalashtirish va ekologik ta’lim sohalarining o‘zaro aloqadorligi, shuningdek, raqamli innovatsiyalarning ushbu jarayonlarga ko‘rsatgan ta’siri tahlil qilinadi. Maqsad – barqaror rivojlanish maqsadlariga erishish yo‘lida innovatsion yondashuvlarning rolini ochib berishdir.

Kalit so‘zlar: yashil moliyalashtirish, yashil iqtisodiyot, ekologik ta’lim, yashil obligatsiyalar, ekologik kreditlash,raqamli innovatsiyalar,uglerod birliklari va uglerod kreditlari

Аннотация: В данной статье анализируется взаимосвязь между зелёным финансированием и экологическим образованием, а также влияние цифровых инноваций на эти процессы. Цель – раскрыть роль инновационных подходов на пути к достижению целей устойчивого развития.

Ключевые слова: зелёное финансирование, зелёная экономика, экологическое образование, зелёные облигации, экологическое кредитование, цифровые инновации, углеродные единицы и углеродные кредиты

Introduction

Today, environmental protection, sustainable development and ecological security are becoming one of the important issues of the global agenda. Climate change, depletion of natural resources and aggravation of environmental problems pose new challenges to the financial system. In particular, green financing is becoming increasingly important as a financial mechanism supporting environmentally friendly, resource-saving and sustainable projects.

At the same time, environmental education is an important tool in forming the environmental awareness of the population and increasing the level of knowledge about environmental protection. Especially in the current era of rapid development of digital technologies, the inextricable link between environmental education and green financing is becoming even stronger. Digital innovations - for

example, artificial intelligence, blockchain, digital platforms and online educational tools - are creating vast opportunities for financial support for green initiatives and increasing the environmental knowledge of the population.

This article analyzes the interrelationships between green finance and environmental education, as well as the impact of digital innovations on these processes. The goal is to reveal the role of innovative approaches in achieving sustainable development goals.

Environmental education is considered one of the main factors of sustainable development and plays an important role in forming environmental awareness and responsibility in society. However, sustainable financial resources are necessary for the development of environmental education. Green bonds, venture capital and innovative financial technologies (FinTech) play an important role in this regard.

Green bonds are special bonds issued to finance environmental protection and sustainable projects, and their role in financing environmental education programs is increasingly increasing. Large financial institutions and governments around the world are supporting environmental projects through green bonds. These bonds can be used to finance environmental education centers, sustainable development programs, research projects and digital environmental education platforms.

In addition, venture capital and investments are providing new opportunities for the development of environmental education. In particular, the possibilities of financing environmental education programs through digital innovations (blockchain, crowdfunding, big data) are expanding. International experience shows that investment funds and grant programs aimed at supporting environmental education projects are yielding effective results.

Thus, this article provides a comprehensive analysis of the impact of green financing on environmental education, the role of green bonds and venture capital, and the opportunities for developing environmental education through digital innovations. At the same time, international experience and current aspects of financing environmental education in the conditions of Uzbekistan are also considered.

ANALYSIS AND RESULTS

The term green financing refers to the process of directing financial resources to develop an ecological and sustainable economy. Today, digital innovations have a significant impact on this process, creating opportunities for optimizing sustainable financing mechanisms, increasing the efficiency of environmental projects, and using resources more economically.

Green finance is a financial system aimed at conserving natural resources, increasing energy efficiency, and supporting environmental projects.Today, green finance is a complex set of institutions, measures and tools within the banking sector, which serve to support projects aimed at improving the social and environmental environment around the world.

The challenges associated with the introduction of green finance are primarily related to the need to transition to a green economic model. This model requires a shift in the approach to production and

consumption from an outdated linear model to a closed-loop economy based on the renewable cycle of resources. The state, society and business are responsible for this change, as they are the main driving forces of the economy.

Financial institutions, in turn, develop and offer financial instruments that help transition to a sustainable and environmentally friendly business.

The main instruments of green finance are:

Green Bonds - bonds issued to finance environmental projects with a fixed repayment term.

Sustainable investments - investments in environmentally friendly projects.

Green lending – financing energy-saving technologies and green businesses.

Carbon units and carbon credits (Carbon Credits) – financial instruments that serve to reduce greenhouse gas emissions. A company can sell or buy this “currency” by proving that it has reduced emissions. 1 carbon credit = 1 ton of CO_2 emissions.

Globally, green financing has been developing over the past 15 years and is associated with the implementation of the following international goals:

-Paris Climate Agreement – reducing greenhouse gas emissions into the atmosphere.

-United Nations Sustainable Development Goals (SDGs), including:

-Affordable and clean energy supply.

-Sustainable cities and communities.

-Measures to combat climate change.

-Rational use of ocean resources.

-Effective use and protection of terrestrial ecosystems.

To achieve these goals, there was a need to develop additional financial instruments. This was due to a change in the paradigm of the approach to the resources of our planet. A thorough analysis of anthropogenic activity shows that over the past 200 years, human impact on nature and the use of resources without taking into account the life cycle have led to the depletion of natural resources and climate change. The results of this are clearly felt in this century.

Therefore, the need to reconsider business processes based on ecological principles and develop mechanisms for capitalizing on the planet's resources has become obvious. As a result, there has been a need to create various financial instruments that encourage business to move in a "green" direction.

Venture capital is a form of investment aimed at financing innovative projects that have a high level of risk, but can bring high returns. The importance of venture capital in the green economy and environmental education is growing, as it supports the development of sustainable technologies, environmental startups and innovative solutions.

The role of venture capital in green financing:

-Supporting environmental startups - financing new projects in the areas of energy efficiency, renewable energy sources, waste recycling and sustainable agriculture.

-Developing digital innovations - encouraging the introduction of artificial intelligence, big data and blockchain technologies that serve environmental education and sustainable development.

-Investing in technologies related to environmental protection - financing innovations in areas such as reducing carbon emissions, rational use of water and land resources.

-Developing international cooperation - venture capital serves to attract global investors to finance environmental projects.

In the conditions of Uzbekistan, the impact of venture capital on environmental education can be significantly increased by supporting innovative startups, developing green technologies, and financing research projects. Therefore, green venture capital is one of the main financial instruments serving environmental education and sustainable development.

Environmental education is an integral part of sustainable development, ensuring the formation of the population as environmentally conscious and cultured individuals. Environmental education plays an important role in shaping people's attitude to the environment. Digital technologies, in particular, innovative tools such as artificial intelligence, blockchain, and big data, are increasing the efficiency of this area and making it possible to disseminate environmental knowledge to a wide audience. This education is based on the following aspects:

Developing environmental awareness and culture.

Teaching the concepts of sustainable development.

Teaching methods for combating environmental problems.

Currently, there are the following forms of developing environmental education using digital technologies:

Online courses and webinars - open educational platforms on environmental topics.

Explanation of environmental problems using artificial intelligence - development of individual educational programs using AI technologies.

Mobile applications - interactive programs that increase environmental awareness.

Gamification and VR technologies - interactive teaching based on virtual and augmented reality.

Now let's consider the impact of digital innovations on green financing and environmental education.

Digital technologies provide the following opportunities to increase the effectiveness of green financing and environmental education:

Blockchain technology - ensures transparency of funds allocated to environmental projects.

Big Data - identification and solution of environmental problems through big data analysis.

Artificial intelligence - optimization and monitoring of environmental sustainability projects.

IoT (Internet of Things) - implementation of environmental monitoring in real time.

The analysis shows that digital innovations are helping to further improve green financing mechanisms and increase the efficiency of financing environmental projects. In particular:

-Green bonds are being monitored through blockchain technology.

-The efficiency of environmental projects is being determined through artificial intelligence and Big Data.

-Environmental monitoring is being carried out through IoT tools.

In addition, when analyzed by our economists, digital technologies in environmental education led to the following positive results, that is, the introduction of digital technologies in the environmental education process increased efficiency:

Environmental education is becoming popular through online courses.

Environmental awareness of the population is increasing through mobile applications.

Individual educational programs are being developed using artificial intelligence.

These results show that digital innovations are becoming an integral part of the development of green financing and environmental education.

Conclusions and recommendations

Green finance and environmental education are important tools for implementing the principles of environmental protection and sustainable development. Digital innovations are becoming increasingly important in increasing the efficiency of these processes. Technologies such as Blockchain, Big Data, artificial intelligence and IoT are creating new opportunities in green finance and environmental education. Based on the above, we find it necessary to make the following recommendations:

Development of digital financing systems - widespread use of blockchain technology for green bonds and carbon markets.

Transforming environmental education into a digital ecosystem - further development of educational platforms.

Expanding private sector participation - encouraging green investments.

Strengthening state and international cooperation - developing green financing mechanisms.

Thus, digital innovations play an important role in the development of green finance and environmental education. In the future, environmental sustainability and economic efficiency can be achieved by further developing these areas.

References:

1. Financial strategy to accelerate green growth: site. URL: https://www.adb.org/sites/default/files/publication/452656/adbiwp866.pdf (date access: 20.03.2021).

2. Establishing Green Finance System to Support the Circular Economy : site. URL: https://www.eria.org/uploads/media/ERIA-Books-2018-Industry4.0-Circular_-Economy.pdf (date access: 20.03.2021).

3. Ekonomicheskie instrumenty stimulirovaniya prirodoochrannoy deyatelnosti: analiz zarubejnogo opyta: site. URL: https://cyberleninka.ru/article/ n/ekonomicheskieinstrumenty-stimulirovaniya-prirodoohrannoy-deyatelnostianaliz-zarubezhnogo-opyta (data obrashcheniya: 25.03.2021).

4. World Investment Report 2018: https://unctad.org/system/files/officialdocument/wir 2018_overview_ru.pdf