

Green Credit – Financial Solution towards Sustainable Development

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Abstract: As climate change and natural resource depletion become pressing global challenges, the transition to a sustainable economy is a top priority for many countries. To achieve this, financial instruments play an important role, and green credit has emerged as an effective solution to support this transition. Green credit not only helps finance environmental protection projects but also promotes sustainable economic and social development. The following article analyzes the role, opportunities and challenges, as well as some solutions for developing green credit in Vietnam.

Keywords: Green Credit, Opportunities and Challenges.

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1. INTRODUCTION

Green credit is a type of financial service designed to provide loans and financial support to projects and businesses whose main goal is to protect the environment and promote sustainable development. Unlike traditional credit, green credit focuses on financing projects that minimize negative impacts on the environment and use resources efficiently.

Green credit is applied in many different fields, especially those related to environmental protection, efficient use of resources, and sustainable development. Currently, the main areas in which green credit is often deployed include:

Renewable energy includes projects to build solar power plants or install rooftop solar systems; develop onshore or offshore wind farms; use biological waste from agriculture or waste to produce energy; sustainable hydropower projects that do not negatively affect the environment.

Green transport includes the development and production of electric vehicles such as cars, motorbikes, and electric buses; supporting projects to improve and develop sustainable public transport systems such as clean energy buses, electric trains, and metros; investing in green transport infrastructure such as electric vehicle charging stations, dedicated bicycle and electric vehicle lanes.

Sustainable agriculture includes funding agricultural projects that reduce the use of toxic chemicals, protect soil and water resources; financial support for water-saving irrigation projects, the use of natural fertilizers, and the reduction of waste from agricultural production; investing in research and technology projects to help crops and livestock adapt to climate change.

Waste management and recycling includes supporting projects to build solid waste treatment plants, industrial or domestic waste to reduce pollution; Investing in waste recycling projects, reducing landfill waste and utilizing recycled materials for production; funding initiatives to develop products that replace single-use plastics and build a system to collect and recycle plastic waste.

Building and developing sustainable urban areas includes supporting projects to build buildings, houses, and offices using environmentally friendly materials, saving energy and water; investing in smart urban planning projects, environmentally friendly infrastructure, urban ecological zones; funding smart water supply and drainage system projects, saving energy and wastewater treatment.

Clean industry includes supporting businesses to invest in technology to reduce greenhouse gas emissions and industrial pollution; projects applying circular production models, reusing raw materials and minimizing energy consumption.

Forest and biodiversity protection includes financial support for projects to conserve and regenerate forests, restore degraded ecosystems; projects to protect endangered species and conserve important natural resources.

Water and water resources include support for projects to protect water sources, treat wastewater and develop water-saving solutions; invest in technology to improve clean water quality and water supply systems for residential and industrial areas.

Green credit has the potential to create positive change in many different areas, helping to improve the environment and contribute to long-term sustainable development. Cooperation between financial institutions, governments and businesses is an important factor to optimize the application of green credit in these areas.

2. RESEARCH CONTENT

2.1. The Role of Green Credit in Sustainable Development

Green credit plays an important role in promoting sustainable development, contributing to solving global environmental challenges such as climate change, pollution, depletion of natural resources and ecosystem degradation.

Promoting the Transition to a Green Economy:

Green credit supports businesses and projects to develop sustainable technologies and solutions, thereby promoting the transition from a resource-intensive and polluting economy to a low-emission, environmentally friendly economy. Sectors such as renewable energy, green transport, and sustainable agriculture are the sectors that benefit greatly from green credit.

Emission Reduction and Environmental Protection:

Green credit finances projects that can reduce greenhouse gas emissions, reduce waste and use natural resources efficiently. For example, renewable energy projects such as solar power, wind power, and forest conservation projects help reduce the negative impacts of climate change and protect biodiversity.

Waste management and treatment, recycling, and cleaner production projects also contribute to reducing environmental pollution, ensuring better air, soil, and water quality for the future.

Supporting Sustainable Economic Development:

Green credit helps businesses access preferential capital to invest in sustainable projects, thereby creating long-term economic value. Promoting green businesses, clean technology, and sustainable solutions helps the economy develop with less risk and ensures future growth. Projects supported by green credit often come with energy efficiency, reduced operating

costs, and increased competitiveness in the international market.

Enhance Corporate Social Responsibility and Image:

Enterprises using green credit not only receive financial support but also enhance their reputation and brand value. Participating in green projects helps enterprises demonstrate their corporate social responsibility, while attracting the attention of investors and customers with high awareness of environmental protection. Banks and financial institutions also enhance their social responsibility by financing environmentally friendly projects, thereby improving their image in the eyes of the public and investors.

Creating Incentives for Technological Innovation:

Green credit promotes investment in clean technology research and development projects, helping enterprises improve production and business processes, increase efficiency and minimize environmental risks. New green technologies such as renewable energy, energy saving, and efficient resource management not only minimize environmental impacts but also open up new business opportunities. At the same time, green credit encourages businesses to actively participate in innovative initiatives to meet sustainable standards.

Create jobs and improve quality of life: Green credit supports the development of new industries, creating many job opportunities in fields related to renewable energy, sustainable agriculture, resource management and environmental conservation. The development of these industries not only helps reduce unemployment but also improves people's quality of life through protecting the living environment. Green projects, such as building ecological housing or improving green transport systems, contribute to creating a healthier living environment for the community.

Reduce Financial and Environmental Risks:

Green credit helps minimize risks related to climate change, environmental degradation and resource issues, thereby reducing pressure on the economy and society in the long term. Businesses and countries that do not focus on sustainable development will face major financial, environmental and reputational risks. Investing in environmentally friendly projects also helps to minimize risks for banks and financial institutions, especially risks related to legality and compliance with international environmental standards.

Promoting International Cooperation on Environmental Protection:

Green credit often attracts support and cooperation from international financial institutions, global environmental protection funds, and international initiatives such as the Paris Agreement on climate change. This enables countries and businesses to take advantage of international financial resources to promote sustainable development domestically.

At the same time, green credit also encourages the sharing of knowledge, technology and experience between countries, thereby helping to reduce the sustainable development gap between different regions of the world.

Green credit plays an essential role in building a sustainable economy, not only helping businesses and financial institutions develop sustainably but also contributing to environmental protection and creating a greener future for the world.

2.2. Current Status of Green Credit in Vietnam

According to the State Bank's report, by 2024, green credit in Vietnam has made important progress. The total outstanding green credit balance reached nearly VND 621,000 billion by the end of 2023, an increase of 24% over the previous year, accounting for about 4.5% of the total outstanding balance of the economy. This reflects a strong increase in loans for renewable energy development projects, clean production, and environmental protection activities. However, this scale is still quite modest compared to Vietnam's green development potential.

Green credit in Vietnam Mainly Focuses on Three Main Areas:

Renewable Energy (Such as Solar Power, Wind Power): Accounts for 45-50% of the total outstanding green credit balance. Rooftop solar power projects and offshore wind power are the most funded areas during

this period. The Vietnamese government aims to increase the proportion of renewable energy to 30% by 2030, creating opportunities for expanding green credit in this sector.

Clean Production and Energy Efficiency: Accounts for about 20-25%. This is also a potential sector, but the proportion of loans for these projects is still low, due to small-scale projects and difficulties in appraisal. Projects on developing environmentally friendly public transport systems, electric vehicles and related infrastructure are also beginning to receive attention. Many businesses have accessed preferential loans to invest in environmentally friendly and energy-saving production technology.

High-Tech and Sustainable Agriculture: Accounts for about 15-20%. This is a sector supported by many commercial banks through green credit loan packages with preferential interest rates for organic agricultural projects, sustainable cultivation and livestock farming.

Several major banks in Vietnam have launched specific green credit programs. For example, the Joint Stock Commercial Bank for Foreign Trade of Vietnam (Vietcombank), the Vietnam Joint Stock Commercial Bank for Industry and Trade (VietinBank), and the Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV) have earmarked a portion of their credit balances to finance renewable energy and sustainable development projects. Smaller banks are also trying to get involved in this area, but have had difficulty accessing and evaluating green projects.

Table 1: Some preferential green credit loan programs at commercial banks

Bank	Loan Program	Interest rate	Loan term
Joint Stock Commercial Bank for Foreign Trade of Vietnam	Renewable Energy Loan Program	6-7%/year (in the first 1-2 years), then adjusted according to the market	10-15 years
	Green credit package for clean production	6.5%/year for medium and long term loans.	7 - 10 years
Vietnam Joint Stock Commercial Bank for Industry and Trade	Green credit loans for renewable energy projects	6.5-7%/year in the first year.	10-15 years
	Clean agricultural loans	6-6.5%/year	5-7 years
Joint Stock Commercial Bank for Investment and Development of Vietnam	BIDV - World Bank Green Credit Program	5-6%/year (in the first year).	Up to 10 years
	Renewable Energy Loans	6.2%/year for the first 2 years	Up to 15 years
Vietnam Prosperity Joint Stock Commercial Bank	Green credit program for SME businesses	6-7%/year	Up to 10 years
	Green credit for renewable energy development	6,5%/year	Up to 15 years
Military Commercial Joint Stock Bank	Loans for renewable energy development	6-7%/year	Up to 15 years
	Green manufacturing and transportation loans	6,5%/year	5-10 years

(Source: Author's synthesis, 2024)

By 2024, banks have achieved remarkable results in developing and implementing green credit loans to support sustainable and environmentally friendly projects. Specifically:

Joint Stock Commercial Bank for Foreign Trade of Vietnam: By the end of 2024, Vietcombank had provided about VND 40,000 billion for green credit-related projects. This figure increased compared to more than VND 30,000 billion at the end of 2022.

Vietcombank is also one of the first banks to support rooftop solar power projects.

Vietnam Joint Stock Commercial Bank for Industry and Trade: By 2024, VietinBank's total outstanding green credit balance will reach about VND35,000 billion, a strong growth compared to VND20,000 billion in 2022.

Vietnam Joint Stock Commercial Bank for Investment and Development: By 2024, BIDV has allocated more than VND30,000 billion to green credit projects, an increase from VND25,000 billion at the end of 2022.

Vietnam Prosperity Joint Stock Commercial Bank: By the end of 2024, VPBank has provided about VND18,000 billion for green credit projects, a significant growth compared to the previous period.

Military Joint Stock Commercial Bank: By the end of 2024, MB Bank has provided about VND20,000 billion for green credit projects, reflecting a strong commitment to supporting sustainable projects.

The Government has issued Decree No. 08/2022/ND-CP on green bonds and Circular No. 17/2022/TT-NHNN of the State Bank of Vietnam, to guide credit institutions in making loans for green projects. In 2021, the Vietnamese Government also committed to achieving a net zero emission target by 2050 at the COP26 Conference. This has created pressure for banks and businesses to promote the development of green credit.

2.3. Opportunities and Challenges in Developing Green Credit in Vietnam

2.3.1. Opportunities

The opportunities for developing green credit in Vietnam are huge, especially in the context of increasing demand for sustainable development and green consumption trends. Government incentives and international financial support create a solid foundation for green credit.

First, the increasing demand for sustainable development and environmental protection

Vietnam is directly affected by the impacts of climate change such as floods, droughts and rising sea levels. This creates an urgent need for projects that reduce environmental impacts and adapt to climate change. Green credit will play an important role in financing projects such as renewable energy, sustainable agriculture, and efficient resource management.

Enterprises are increasingly aware of their responsibility to protect the environment, creating conditions to promote the demand for green credit capital to implement environmentally friendly projects.

Second, the government's strong commitment to sustainable development

The Vietnamese government has demonstrated its clear commitment to sustainable development through

the National Green Growth Strategy, the Paris Agreement on Climate Change, and national action programs on renewable energy development. These commitments create favorable conditions for green projects to be financed through green credit.

Many preferential policies and tax and interest rate support for green projects have been and are being implemented by the Vietnamese government. This creates conditions for banks and financial institutions to promote green credit products.

Third, financial support from international organizations

Vietnam has been receiving support from international financial organizations such as the World Bank, the International Monetary Fund (IMF), the Asian Development Bank (ADB), and global environmental protection funds. These preferential capital sources not only help Vietnam access green finance conveniently but also enhance its capacity to implement green projects.

Support from international organizations also contributes to creating a stable and attractive financial environment, encouraging investment in sustainable development projects.

Fourth, great potential from green industries

Vietnam has great potential in the fields of renewable energy (solar power, wind power), sustainable agriculture, and green industry. Financing projects in these fields through green credit will not only help reduce greenhouse gas emissions but also promote sustainable economic development.

Businesses and industries in Vietnam are increasingly interested in green technology and sustainable production methods, creating a great demand for green credit capital to invest in these technological solutions.

Fifth, green consumption trends and pressure from the community

Consumers in Vietnam are increasingly interested in environmentally friendly products and services, which puts pressure on businesses to adjust their business strategies towards sustainable development. Businesses can take advantage of green credit to invest in cleaner production solutions, improve brand image and meet increasing market demand.

The international community and investors are increasingly interested in corporate social responsibility, especially businesses participating in environmental protection projects. Applying green credit helps businesses enhance their reputation and attract the attention of investors who are conscious of sustainable development.

Sixth, profitability from green projects

Although the initial investment costs of green projects are often high, in the long term, these projects have the potential to bring stable and sustainable profits thanks to the efficient use of resources and the reduction of operating costs. For example, renewable energy projects such as solar and wind power can bring stable income from selling electricity to factories or the national grid.

Green credit helps businesses and banks participate in areas with high growth potential, such as renewable energy, green transportation and waste management, thereby increasing profits and reducing financial risks.

Seventh, opportunities for technological innovation and creativity

Developing green credit not only creates investment opportunities in existing projects but also encourages businesses to innovate technology, research and deploy sustainable solutions. Green technology research and development projects can receive funding from green credit, contributing to improving production efficiency, minimizing environmental impacts and creating competitive advantages for businesses.

With support from government policies and incentive programs, businesses can take advantage of green credit to apply advanced technologies such as clean energy, smart resource management, and circular production.

Vietnam has many great opportunities to develop green credit, especially thanks to the government's commitment, support from international organizations, and the growing demand for sustainable development. By making good use of these opportunities, green credit can become an important financial tool to help Vietnam achieve its goals of developing a green economy, minimizing environmental impacts and protecting resources for future generations.

2.3.2. Challenges

In the period 2020-2024, the growth rate of green credit reached an average of 20% per year. Many banks have developed green credit product packages to support renewable energy, sustainable agriculture, and clean water management projects. However, the development of green credit in Vietnam faces many significant challenges, including:

Lack of a clear and synchronous legal framework: Currently, Vietnam does not have a complete and specific legal system on green credit. Regulations on green standards, green project assessment processes, and monitoring mechanisms are still unclear, leading to difficulties in implementing and managing green credit. Although the government has introduced a number of policies to encourage sustainable development, the lack of detailed guidelines and specific

regulations on green credit makes it difficult for banks and businesses to apply standards and processes.

Limited awareness and understanding: Many businesses, especially small and medium enterprises (SMEs), are still not fully aware of the benefits and opportunities of green credit. Lack of understanding of environmental standards and green technologies makes them less interested in applying green credit. Banks also lack experience and expertise in evaluating green projects. Lack of understanding of the risks and opportunities of green projects can lead to banks being reluctant to grant green credit.

High initial investment costs: Green projects often require higher initial investment costs than traditional projects, especially in areas such as renewable energy and clean technology. This can be a major barrier for small and medium-sized enterprises when accessing green credit. Some green projects may not generate immediate profits, which makes investors and banks hesitant to finance these projects due to concerns about the ability to recover capital.

Inadequate risk assessment and management capabilities: Environmental risk assessment of green projects is limited, as many banks do not have the tools and methods to assess the effectiveness and impact of these projects. This increases the risk for banks when granting green credit. Banks and businesses do not have effective environmental risk management processes, reducing the ability to ensure that green projects achieve environmental and financial goals.

Lack of cooperation and synchronization among stakeholders: The lack of close coordination between government agencies, banks, and enterprises reduces the effectiveness of green credit implementation. The lack of incentive and support mechanisms from the government and financial institutions can reduce the motivation for enterprises and banks to participate in green credit projects. **Difficulty in accessing capital:** Despite support from international organizations, access to green credit capital is still limited, especially for small and medium enterprises. The lack of capital can hinder the implementation of green projects. The cost of borrowing for green projects can be higher than for traditional projects, especially in the context of banks having little experience and no specific incentive mechanism for green credit.

Difficulties in measuring and demonstrating environmental impacts: Measuring the environmental performance of green projects is difficult due to the lack of accurate tools and methods to assess environmental impacts and benefits. This makes it difficult to demonstrate the value and effectiveness of green projects. The lack of specific national or international standards and certifications for green projects also

reduces the ability to demonstrate the feasibility and effectiveness of projects.

Technology and innovation issues: Many advanced green technologies have not been widely applied in Vietnam due to a lack of necessary knowledge and technology. This shortage can reduce the ability to deploy green projects and make it difficult to access new technological solutions. Enterprises and banks may have difficulty in innovating technology and implementing innovative solutions due to a lack of financial support and close coordination among stakeholders.

Green credit development in Vietnam faces many challenges, from the lack of a clear legal framework, limited awareness among businesses and banks, to high investment costs and difficulties in measuring environmental impacts. To overcome these challenges, there needs to be synchronous coordination between the Government, banks, businesses, and international organizations, along with the completion of policies and regulations related to green credit.

2.4. Some Solutions for Developing Green Credit in Vietnam

Green credit plays an increasingly important role in moving towards sustainable development in Vietnam, especially in the context of climate change and increasing environmental pollution. The implementation of green credit programs is not only a financial strategy, but also part of the effort to implement international commitments such as Net Zero by 2050. However, to maximize its effectiveness, green credit needs support from many sides, including perfecting the legal framework, developing appropriate financial products, and raising social awareness.

In the current development stage, solutions to promote green credit are necessary to overcome financial and legal barriers, while exploiting the great potential of sustainable projects. The following are important solutions for developing green credit in the coming time.

Completing the Legal Framework and Policies

Building a System of Green Standards and Portfolios:

The lack of specific legal regulations on green project portfolios is one of the major difficulties today. Developing and promulgating criteria for classifying green projects will help banks and financial institutions easily appraise and evaluate projects, thereby developing green credit.

Incentive Policies:

The Government needs to implement preferential policies on taxes and fees for green projects, including tax exemptions and reductions for businesses investing in environmentally friendly technology and products. This helps reduce investment costs and increase access to credit.

Developing Green Financial Products

Issuing Green Bonds: Increase the issuance of green bonds to create long-term capital for renewable energy, wastewater treatment and waste management projects.

Developing Preferential Credit Packages: Banks need to design green credit packages with preferential interest rates, giving priority to sustainable businesses and projects, especially in the fields of clean energy, organic agriculture, and emission reduction technology.

Enhancing Training and Appraisal Capacity

Training Credit Officers: Appraising green projects requires in-depth knowledge of the environment, so it is necessary to train bank staff on technical standards and environmental risks.

Applying Technology: Banks should apply digital technology and big data to monitor green projects, measure environmental performance and manage risks accurately.

Expanding International Cooperation

Mobilizing Capital from International Organizations: Vietnam can cooperate with international financial organizations such as IFC and ADB to access capital sources and advanced technology to develop large-scale green projects.

Sharing Experiences: Participating in international forums on sustainable finance to learn from the experiences of developed countries, while enhancing cooperation in research and development of green technology.

Raising Awareness and the Role of Enterprises

Communication and Awareness Raising: There should be communication campaigns to raise awareness of the economic and environmental benefits of green credit for enterprises and the community.

Encouraging Private Enterprises: Private enterprises should be encouraged to participate in green projects through creating favorable legal, financial and market conditions.

Promoting New Initiatives and Mechanisms

Carbon Credit Mechanism: The development and implementation of a carbon credit market will create incentives for businesses to invest in emission reduction projects.

Developing Green Energy Technology: Promoting investment in renewable energy technology such as wind power, solar power, and new technologies such as energy storage and carbon capture.

Successful implementation of these solutions will not only help Vietnam meet its international commitments on emission reduction but also create incentives for the economy to transition to a green, sustainable, and modern growth model. As a result, green

credit not only brings environmental benefits but also ensures financial stability and long-term economic development.

3. CONCLUSION

Green credit is an important financial tool in promoting sustainable development, helping businesses access preferential capital to implement environmental protection projects and minimize negative impacts on the ecosystem. For green credit to be truly effective, there needs to be cooperation between the government, banks, businesses and international organizations to build a sustainable and environmentally friendly financial system. The future of the green economy depends on innovation in the financial sector, and green credit is an important key to opening the path to sustainable development for the world.

REFERENCES

- Ganda, F. (2019). The environmental impacts of financial development in OECD countries: A panel GMM approach. *Environmental Science and Pollution Research*, 26(7), 6758-6772.
- Gritzas, G., & Kavoulakos, K. I. (2016). Diverse economies and alternative spaces: An overview of approaches and practices. *European Urban and Regional Studies*, 23(4), 917-934.
- Nguyen, H. T., & Tran, M. N. (2022). Developing green credit in the Vietnamese banking system. *Journal of Economics and Forecasting*, 8(2), 45-56.
- Pham, Q. A. (2023). Solutions to promote green credit in Vietnam. *Journal of Banking and Finance*, 15(1), 95-110.
- Tran The Anh. (2022). Current status of green credit implementation, proposing some solutions to promote green credit development in the coming time, accessed from <http://tapchimoitruong.vn/dien-dan--trao-doi-21/thuc-trang-trien-khai-tin-dung-xanh-de-xuat-mot-so-giai-phap-thuc-day-phat-trien-tin-dung-xanh-trong-thoi-gian-toi-27268>.
- Tran, D. H. (2023). The role of green credit in sustainable economic development. *Vietnam Environment Journal*, 11(6), 34-40.
- Wang, E., Liu, X., Wu, J., & Cai, D. (2019). Green credit, debt maturity, and corporate investment-Evidence from China. *Sustainability*, 11(3), 583.
- Xu, X., & Li, J. (2020). Asymmetric impacts of the policy and development of green credit on the debt financing cost and maturity of different types of enterprises in China. *Journal of Cleaner Production*, 264, 121574.
- Yao, S., Pan, Y., Sensoy, A., Uddin, G. S., & Cheng, F. (2021). Green credit policy and firm performance: What we learn from China. *Energy Economics*, 101, 105415.