

# **GREEN FINANCE AS A DRIVER OF SUSTAINABLE DEVELOPMENT AND ITS IMPLEMENTATION IN RA**

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## ***Abstract***

In the face of today's global and local challenges—such as environmental protection and combating climate change—these issues have become integral to economic policy. In this context, green financing gains special importance as a set of financial mechanisms aimed at promoting sustainable development and funding environmentally responsible projects. The objective of this research is to examine the role of green financing in the sustainable development process, evaluating its current application and future prospects in the Republic of Armenia.

The study analyzes the main instruments of green financing (green loans, bonds, subsidies, and tax incentives), explores international experience, and reviews existing green financing initiatives and market characteristics in Armenia. Particular attention is paid to current challenges, including regulatory gaps, limited access to financial resources, and lack of professional expertise. The paper also emphasizes the role of financial technologies, public policy, and international cooperation in advancing green finance.

Research findings indicate that while green financing in Armenia is still in its formative stage, it holds significant potential to become a stable and environmentally responsible driver of economic growth. The study concludes with a set of recommendations aimed at strengthening and effectively implementing green finance systems.

## **GEL code: E5**

**Keywords:** green financing, sustainable development, renewable energy, green bonds, green loans, environmental protection, climate change, energy efficiency, financial instruments, esg investments (environmental, social, governance).

## **Introduction**

**The relevance of the article:** In today's world, the issues of environmental protection, combating climate change, and ensuring the sustainable development of the economy have become priorities at both global and local levels. In this context, green financing is gaining increasing importance as a combination of financial tools and mechanisms aimed at funding environmentally sustainable projects. It is not limited to the environmental sector alone but has the

potential to contribute to the sustainable development of various branches of the economy.

In Armenia, green financing is still at an early stage of development. However, international experience and local initiatives highlight its vast potential. In recent years, there has been growing interest in environmentally friendly investments in the RA, providing a basis for discussing the applicability and efficiency of green financing.

**The purpose and objectives of the article:** The **purpose** of this work is to assess the role of green financing in sustainable development and evaluate its application level and prospects in the Republic of Armenia.

To achieve the above-mentioned goal, the following **tasks** were targeted in the work:

- Study of the main principles and tools of green financing,
- Identification of international experience in the field of green financing,
- Analysis of the current state and challenges of green financing in the Republic of Armenia,
- Outline of ways for the practical application and development of green financing in the Republic of Armenia.

The research work concludes with the section of conclusions and recommendations, which summarizes the results of the conducted studies and conclusions.

## Findings

**Green financing** is a mechanism for the management and allocation of financial resources aimed at supporting environmental protection, mitigating climate change, and promoting sustainable development. It includes both public and private sector investments directed toward renewable energy, energy efficiency, environmentally clean production, and other green initiatives.

As a concept, **green financing** emerged in the late 20th century when global discussions began to seriously address climate change and the depletion of environmental resources. However, its foundations can be traced back to the 1970s and 1980s, when various countries began considering the development of environmentally friendly economic systems (Thu Truong, Trung Chinh Dang 2025).

*Table 1*

**“Phases of Green Finance Development”<sup>1</sup>**

<b>Early Phases (1970–1990)</b>	<b>1972:</b> The UN held the first global conference on environmental	<b>1987:</b> “Our Common Future” report (Brundtland Report) introduced	<b>1992:</b> At the Earth Summit in Rio, the UN adopted “Agenda 21,” emphasizing the
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<sup>1</sup> The table was compiled by the author based on the articles:

<https://docs.un.org/en/A/CONF.48/14/Rev.1>,

[file:///C:/Users/PC/Downloads/our\\_common\\_futurebrundtlandreport1987.pdf](file:///C:/Users/PC/Downloads/our_common_futurebrundtlandreport1987.pdf),

<https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>,

(29.03.25)

	issues in Sweden (Stockholm Conference), marking the beginning of sustainable development discussions <sup>2</sup>	the concept of sustainable development for the first time—economic growth that does not compromise future generations' needs. <sup>3</sup>	importance of new financial mechanisms.
<b>Modern Green Finance Development (1997–2010)</b>	<b>1997:</b> Kyoto Protocol was signed, obliging developed countries to reduce carbon emissions <sup>4</sup>	<b>2007:</b> First issuance of green bonds by the European Investment Bank (EIB), a crucial step in the evolution of green financial tools. <sup>5</sup>	<b>2009:</b> COP15 in Copenhagen discussed new financing mechanisms for combating climate change. <sup>6</sup>
<b>New era (after 2010)</b>	<b>2015:</b> The Paris Agreement was signed, obligating countries to reduce carbon emissions.	<b>2015:</b> UN Sustainable Development Goals (SDGs) were introduced, several of which directly relate to green financing.	<b>2020-s:</b> Green finance has become a core direction in international markets, with ESG (Environmental, Social, Governance) investments forming a main investment strategy.

Green financing is also crucial because it supports the creation of new opportunities for green businesses, job growth, and skill development, thereby positively impacting macroeconomic indicators.

In 2007, the European Investment Bank (EIB) launched the initial “green bonds” project, contributing to the promotion of the green bonds market.

<sup>2</sup> “United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm”, <https://www.un.org/en/conferences/environment/stockholm1972/>, (29.03.25)

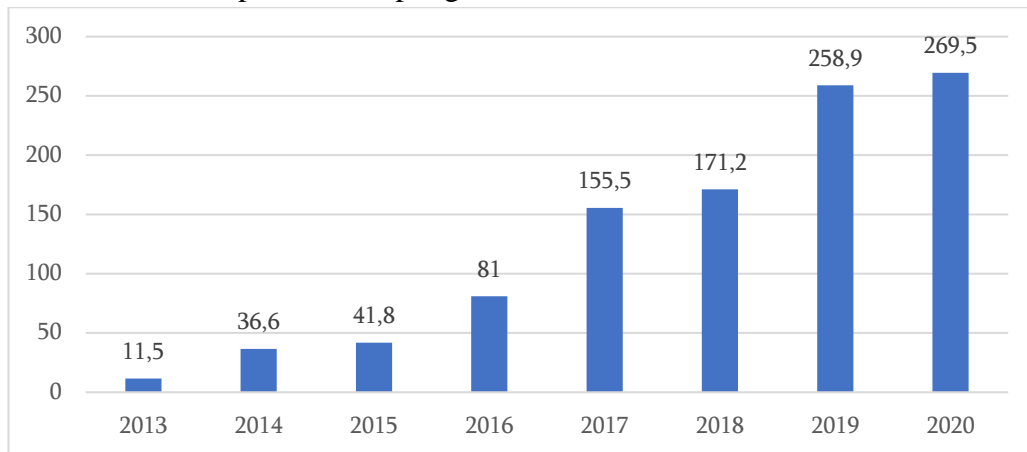
<sup>3</sup> “1987: Brundtland Report”, <https://www.are.admin.ch/are/en/home/media/publications/sustainable-development/brundtland-report.html>, (29.03.25)

<sup>4</sup> “Kyoto Protocol” international treaty, 1997, <https://unfccc.int/resource/docs/convkp/kpeng.pdf>, (29.03.25)

<sup>5</sup> “15 years of EIB green bonds: leading sustainable investment from niche to mainstream”, <https://www.eib.org/en/press/all/2022-308-15-years-of-eib-green-bonds-leading-sustainable-investment-from-niche-to-mainstream#:~:text=On%20July%205th%202007,of%20social%20and%20sustainability%20bonds.>, (29.03.25)

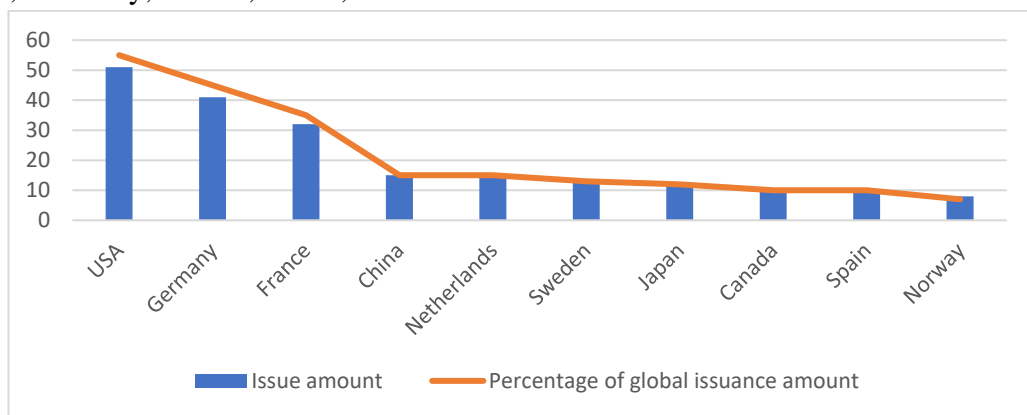
<sup>6</sup> “15th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change”, <https://www.c2es.org/content/cop-15-copenhagen/>, (29.03.25)

However, during the first seven years, the development of this market remained relatively limited. It was only in 2013 that the green bond market began to surge, and since then, it has experienced rapid growth.



**Chart 1. “Annual Total Issuance of Green Bonds (Trillion USD)”<sup>7</sup>**

Since 2014, global green bond issuance has steadily increased, reaching a peak in 2020 at \$269.5 trillion. This upward trend reflects the growing recognition of the importance of funding sustainable projects and initiatives. The success and expansion of the green bond market highlight the potential to raise capital for sustainability and create a stable financial ecosystem. From a geographical perspective, the top five countries in terms of green bond issuance are the United States, Germany, France, China, and the Netherlands.



**Chart 2. “Distribution of Green Bond Issuance by Country (Trillion USD)”<sup>8</sup>**

Green finance gained new momentum in 2015 after the signing of the Paris Climate Agreement, which aimed to tackle the global challenges posed by climate change. To implement this agreement, \$3–6 billion of investments are required annually by 2050. Since developing countries often lack such financial capabilities, developed nations assist them through funding. Since 2016, Armenia has also been a part of this agreement.

Today, green financing holds significance not only from an environmental but also from an economic perspective, helping countries reduce carbon

<sup>7</sup> The chart was compiled by the author based on data from Climate bonds.net, (29.03.25)

<sup>8</sup> The chart was compiled by the author based on data from Climate bonds.net, (29.03.25)

emissions, develop innovative technologies, and stimulate sustainable economic growth.

Green financing mechanisms may vary depending on the source of funding, beneficiaries, and project scale. Below are the key instruments commonly used globally and in Armenia (Savastano M., Tshughuryan A., 2025):

- **Green loans** – Special loans provided to businesses and individuals implementing sustainable development initiatives. These loans often offer lower interest rates, extended repayment terms, and support projects in energy efficiency and renewable energy.

- **Green bonds** – Instruments through which governments and companies raise capital specifically for environmentally friendly projects. These are considered innovative financial tools and offer stable returns for investors, contributing to green infrastructure development.

- **Government subsidies and tax incentives** – Many countries offer financial incentives for green businesses, such as tax benefits, subsidies for renewable energy production, and funding for environmental protection initiatives.

- **International funding sources** – Numerous global organizations and foundations fund green projects, such as:

- *Green Climate Fund* – supports developing countries in combating climate change,
- *World Bank's Climate Investment Fund* – provides funding for sustainable development programs,
- *International Finance Corporation* – finances energy efficiency projects.

In conclusion, **green financing is a strategic tool** that enables the integration of economic growth with environmental protection. It helps states and businesses invest in environmentally responsible solutions and comply with international environmental standards.

**Green financing** in Armenia is still in its formative stage; however, some progress has been made in recent years. The primary investments are concentrated in renewable energy, energy efficiency, and environmental protection programs.

The roots of green financing in Armenia can be traced back to the 1990s, following the country's independence, when the Republic began to integrate with international environmental and financial institutions.

As a small developing country, Armenia was initially heavily dependent on international aid and credit programs. However, the country's geographic position, environmental issues, and energy security gradually encouraged the development of green finance initiatives. In 2009, the Armenian government developed its *first national sustainable development strategy*, which included programs for green energy and environmental protection.

By the 2010s, the first public and private financial programs aimed at developing a green economy had been formed in Armenia. Since 2017, green finance tools have become more active in the Armenian banking system. In recent years, green financing has gained more attention in Armenia. In 2021, the

Armenian government announced the *National Program for the Development of Renewable Energy*, which aimed to ensure that 15% of the country's electricity would come from renewable sources by 2025.

The Central Bank of Armenia also began exploring the possibility of issuing green bonds that could attract international investors.

As a result, Armenia's first green bonds were issued by Ameriabank in 2020, with a nominal value of 1 million euros.<sup>9</sup> The green bond issuances in Armenia are summarized in Table 2 below.

Table 2

**“Green Bond Issuances in the RA”<sup>10</sup>**

Issuer	Issue Date	Nominal Value	Coupon Rate (%)	Period (months)	Redemption Date
Ameriabank CJSC	03.12.2020	1 million euros	3.05	60	26.11.2025
	14.02.2022	100 USD	3.50	27	14.05.2024
	14.02.2022	100,000 AMD	9.50	27	14.05.2024
"Electric Networks of Armenia" CJSC	15.07.2024	100 USD	7.25	48	15.07.2028
	01.08.2024	100 USD	7.25	60	01.08.2029

**Green bonds** refer to any type of bond instrument through which the raised funds (or their equivalent) are used—either partially or fully—exclusively for financing or refinancing new and/or existing “green” projects. The Green Bond Principles (GBP) are designed to help issuers finance environmentally safe and sustainable projects that contribute to a zero-emissions economy and environmental protection. The first green bonds in the world were issued in 2007 by the European Investment Bank, followed a year later by the World Bank. Since then, many governments and corporations have entered the market to fund *green projects*.

<sup>9</sup> «GEFF-ի Գործընկերն առաջինը Հայաստանում արժանացավ կայուն ֆինանսավորման մրցանակին», <https://ebrdgeff.com/armenia/am/geff-pfi-wins-the-1st-sustainable-finance-award-in-armenia/>, (28.03.25)

<sup>10</sup> The table was compiled by the author based on data from the Armenian Stock Exchange: <https://amx.am/am/pages/green-social-bonds>, (28.03.25)

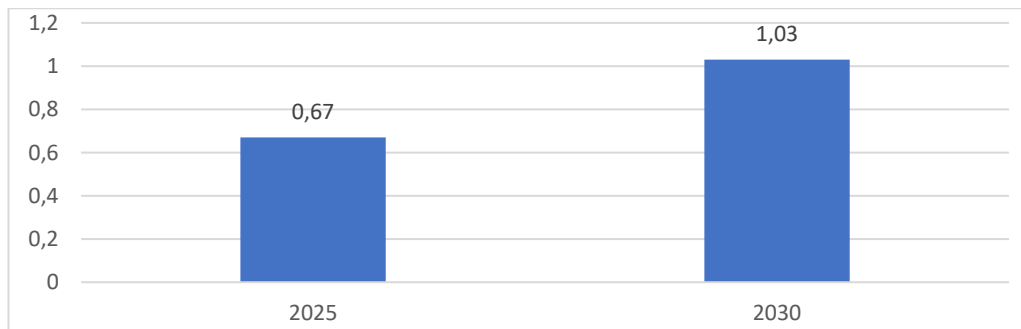


Chart 3. “Size of the Green Bond Market (2025–2030, in trillion USD)”<sup>11</sup>

The size of the green bond market is projected to reach \$0.67 trillion by 2025 and is expected to grow to \$1.03 trillion by 2030. Over the past ten years, the green bond market has seen significant growth due to the focus on sustainability and climate change.

The market has attracted a wide range of investors, including institutional investors, pension funds, and retail investors. Green bonds offer a way to attract sustainable investments, as investors increasingly incorporate ESG (Environmental, Social, and Governance) criteria into their investment plans.

Thus, green bond issuance can be a promising tool for Armenia, but its success depends on clear legislative frameworks, reliable mechanisms for investors, and a long-term strategy. If the government and financial sector develop appropriate policies, green bonds could play a significant role in the sustainable development of Armenia’s economy.

As for **green loans**, these are financial instruments provided under the condition that the loan funds are used solely for environmental improvement. Green loans often come with favorable conditions compared to traditional loans, such as lower interest rates, longer terms, or extended repayment periods. In conclusion, the expansion of green loans could promote Armenia’s integration into international financial markets and strengthen its position as a center for sustainable financing. For Armenia, this opens up new prospects, particularly in renewable energy development and climate change mitigation efforts.

The prospects for developing green financing in Armenia can be viewed across several key directions, especially considering that green financing involves the allocation of financial resources to projects that support environmental protection, energy efficiency, sustainable development goals, and climate change mitigation.

In Armenia, green financing can act as a **catalyst for the development of sustainable business models**. Certain sectors of the Armenian economy—such as energy, agriculture, transport, and mining—must transition toward eco-compatible models. Businesses that implement energy-efficient technologies, low-emission production processes, or sustainable agricultural practices can seek access to green loans or other financial resources, such as:

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<sup>11</sup> The chart was created by the author based on “Green Bonds Market Size and Share Analysis - Growth Trends and Forecast (2025 – 2030), <https://www.mordorintelligence.com/industry-reports/green-bonds-market>”, (28.03.25)

- **Green loans and infrastructure financing** for renewable energy sources, water resource management, and low-emission industries,

- **Promotion of green investments** in Armenia's energy efficiency and renewable energy programs.

The government can also play a vital role in promoting green financing by steering relevant initiatives through proper policies and legislation. For the Armenian government, it is crucial to **encourage the engagement of green finance** in areas such as energy efficiency, climate change adaptation, and environmental incentives through:

- Establishing **institutional frameworks** for green finance, including regulatory standards for green loans,

- Implementing **climate-adaptive public programs** supported by green financing mechanisms.

The development of **financial technologies (FinTech)** in Armenia further enables the acceleration of green financing processes. FinTech companies can introduce innovative solutions that make green finance more accessible to clients and investors by:

- Creating **dedicated digital platforms** for green financing that connect commercial banks, investors, and clients more efficiently,

- **Automating green loan and leasing processes** to ensure faster and more effective transactions.

To advance green financing in Armenia, **market-level reforms** are necessary. Financial institutions must begin assessing which projects qualify for green loans and ensure their environmental compliance. To support this:

- **Banks, insurance companies, and investment funds** should be provided with the necessary regulatory tools and incentives to issue green loans,

- Development of a **green loan market** that also supports small and medium enterprises (SMEs).

Armenia could also benefit from **enhanced cooperation with international organizations** to support green finance programs and attract appropriate financial resources.

In summary, green financing in Armenia has significant development potential, driven by the introduction of modern financial models, the activation of sustainable development projects, and goals centered on environmental improvement. In this context, **collaboration between the state and the private sector**, along with technological advancement, can stimulate the green financing process and help transform Armenia's economy toward more sustainable and environmentally friendly models.

## Conclusions

Summarizing the research work, the following conclusions can be presented:



- In recent years, green financing has become a key component of sustainable development, serving as an important tool for continuous growth and environmental protection in the context of geopolitical and economic challenges.

- Green financing acts as a stimulus for sustainable economic development, contributing to environmental protection and the long-term progress of businesses.

- The main instruments of green financing include green bonds, green loans, subsidies, and tax incentives. These tools help investors direct their resources toward sectors that support environmental preservation.

- In Armenia, green financing is still at an early stage of development. Certain challenges are encountered when investing in green finance, such as the lack of specific tools, insufficient application of environmental policies, and limited resources. In addition, the absence of financing for green projects and a lack of specialized education make it difficult to ensure sustainable growth in this field.

- Despite these challenges, Armenia has considerable potential for developing green financing. Encouraging sustainability and environmental protection can increase investment flows, thereby contributing to economic growth.

Based on the research findings, the following recommendations are proposed:

1. **Development of legislation promoting the green financing system and coordination of processes** – The establishment of a legal framework for green financing tools in Armenia will lay the foundation for attracting investments, particularly by encouraging the spread of green bonds and loans.

2. **Government support and policy** – The formation of a national green financing strategy will stimulate investments through the use of tax incentives and public support to promote environmental investments.

3. **Improving capacity, education, and raising public awareness** – Well-designed programs aimed at educating professionals and economic actors in both the public and private sectors can also serve as a stimulus. It is equally important to inform the population about green financing directions to encourage investment flows in the sector, which will contribute to the improvement of the environment.

4. **Promotion of international cooperation** – It is a priority to promote international collaboration and the exchange of experience with other countries that already have well-established green financing systems.

## References

### Laws and Other Legal Acts

1. Decision of the Government of the Republic of Armenia “On the Approval of the Sustainable Development Program”, 2008.
2. Decision of the Government of the Republic of Armenia “On the Approval of the Energy Saving and Renewable Energy Program for 2022–2030 and the Implementation Schedule of the First Phase (2022–2024)”.

### Scientific Literature

**Savastano M., Tshughuryan A., (2025) Green Entrepreneurship, Text book,**

Sapienaz University.

**Thu Truong Trung Chinh Dang (2025) Green finance tools education in vietnam: a mixed method study”** by duy anh Le;

United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm

“1987: Brundtland Report”

“Kyoto Protocol” international treaty, 1997

“15th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change”

“United Nations Climate Change, The Paris Agreement”

### **Web Sources:**

<https://pressbooks.pub/greenfinancetoolseducationinvietnam/>,

<https://docs.un.org/en/A/CONF.48/14/Rev.1>,

[file:///C:/Users/PC/Downloads/our\\_common\\_futurebrundtlandreport1987.pdf](file:///C:/Users/PC/Downloads/our_common_futurebrundtlandreport1987.pdf),

for%20funding%20environmentally%20friendly%20projects,

<https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>,

<https://www.un.org/en/conferences/environment/stockholm1972>,

## **ԿԱՆԱԶ ՖԻՆԱՆՍԱՎՈՐՈՒՄԸ ՈՐՊԵՍ ԿԱՅՈՒՆ ԶԱՐԳԱՑՄԱՆ ԽԹԱՆԻՉ ԵՎ ԴՐԱ ԿԻՐԱՌՈՒՄԸ ՀՀ-ՈՒՄ**

### **Արմենուհի Մհերյան**

Հայաստանի եվրոպական համալսարան

### **Իլուտա Արբիդանե**

Ռեզեկնեի տեխնոլոգիական ակադեմիա

### **Զուլիետա Հակոբյան**

Հայաստանի եվրոպական համալսարան

Ժամանակակից գլոբալ և տեղական մարտահրավերների պայմաններում՝ ինչպես շրջակա միջավայրի պահպանությունը, այնպես էլ կլիմայական փոփոխությունների դեմ պայքարը դարձել են տնտեսական քաղաքականության անբաժանելի բաղադրիչներ: Այս համատեքստում նոր արժեք է ստանում **կանաչ ֆինանսավորումը**՝ որպես այնպիսի ֆինանսական մեխանիզմների համախումբ, որոնք ուղղված են կայուն զարգացման խթանմանը և էկոլոգիապես պատասխանատու նախագծերի ֆինանսավորմանը: Տրված հետազոտությունը նպատակ ունի ուսումնասիրել կանաչ ֆինանսավորման դերը կայուն զարգացման գործընթացում՝ գնահատելով դրա ներկայիս կիրառելիության աստիճանն ու զարգացման հեռանկարները ՀՀ-ում:

Աշխատանքում վերլուծվել են կանաչ ֆինանսավորման հիմնական գործիքները (կանաչ վարկեր, պարտատոմսեր, սուբսիդիաներ և հարկային արտոնություններ), ուսումնասիրվել է միջազգային փորձը և դիտարկվել են ՀՀ-ում գործող կանաչ ֆինանսավորման նախաձեռնություններն ու շուկայի առանձնահատկությունները: Անդրադարձ է կատարվել նաև կանաչ ֆինանսավորման ոլորտում առկա մարտահրավերներին՝ իրավական կարգավորման, ֆինանսական ռեսուրսների հասանելիության և մասնագիտական պատրաստվածության տեսանկյունից:

Հետազոտության արդյունքները վկայում են, որ ՀՀ-ում կանաչ ֆինանսավորման համակարգը դեռևս գտնվում է ձևավորման փուլում, սակայն ունի մեծ ներուժ՝ դառնալու տնտեսական աճի կայուն և էկոլոգիապես պատասխանատու բաղադրիչ:

***Հիմնաքառեր*** - կանաչ ֆինանսավորում, կայուն զարգացում, վերականգնվող էներգիա, կանաչ պարտատոմսեր, կանաչ վարկեր, շրջակա միջավայրի պաշտպանություն, կլիմայի փոփոխություն, էներգա-արդյունավետություն, ֆինանսական գործիքներ