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Current Issues of Financing "Green" Projects

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Introduction

Georgia has adopted several regulatory and legal acts that regulate the ability of the country's organizations and individual entrepreneurs to develop and implement "green" projects for the "green" economy of the future and defined measures to account for, limit, and control greenhouse gas emissions. The 2030 climate change strategy of Georgia was approved. A new category of property rights is provided – a carbon unit, equivalent to one ton of carbon dioxide gas. The adoption of acts is a result of Georgia's participation in the Paris Climate Agreement.

For climate purposes, governments, interested commercial banks, and companies in 110 countries are developing and implementing accounting and regulatory standards for mechanisms and tools in the fields of environmental, social, and corporate governance (ESG) to solve these problems by voluntarily involving interested parties (Peterdy, 2023). The initiative establishes a long-term ethical trend of conducting international "green" business, which includes principles, mechanisms, and tools necessary to achieve the goals of sustainable development of banks, companies, the economy, and society as a whole.

Thus, the goals of sustainable development lead to the transition to ecological ("green") business and the need to introduce appropriate management standards as a set of measures aimed at organizing sustainable activities, implemented most effectively (Clark and Wu, 2016). These standards are part of the international standards of environmental management systems ISO 14000, which impose The mission of businesses to implement innovative technologies and approaches to reduce the negative

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impact of their activities on the environment and to reduce global warming to the level envisaged by the United Nations "2 °C" strategy (Mc Dowell et all., 2017).

In addition, according to forecasts, the transition to a "green" economy by 2030 will require investments of 3.5 trillion dollars. According to experts, only one-sixth of these investments can be implemented with the state financing of different countries, and the rest should be implemented with private investments, which will be attracted by companies for the implementation of environmental ("green") projects.

To solve current problems in ecology, industry, and finance, Georgian state bodies and companies (ESG leaders) have united on a national platform. To finance "green" projects, participating business entities need banking and corporate resources (Finance for climate action, 2022). To attract resources, the authors suggest using appropriate tools, which are used in practice as managed aggregates. To achieve this, based on the international and Georgian experience, first of all, the peculiarities of the development of "green" projects are clarified, secondly, the regularity of the transformation of climate risks into corporate-credit risks is analyzed and, third, taking into account the typical parameters of the identified instruments, their operational model with different forms of asset security is proposed, which allows us to analyze the results of financing "green" projects for various purposes in a controlled and adaptive mode.

1. Peculiarities of developing green projects

The types of "green" projects according to the areas of investment objects and the goals of sustainable business development realized by them are presented in the table (see Table 1).

It should be noted that the realization of "green" projects implies, in the process of business development, the use of innovative approaches and the implementation of innovative activities.

Currently, the United Nations Environment Program proposes three scenarios for the transition to sustainable development by 2030 (Desa, 2028):

- Business as usual scenario, taking into account the current state of the environment, envisages investments in upgrading infrastructure, technologies, personnel skills, policies, and business models in all sectors of the economy;
- The "2 °C" scenario envisages the implementation of the Business as usual model, taking into account the achievement of the environmental goals of sustainable development and the desire to lower the average temperature of the planet to a level equal to the average temperature of the planet before the industrial revolution;
- The Incremental investment scenario envisages bringing the Business-as-usual model to the "2 °C" model while achieving the environmental goals of sustainable development.

It should be noted that the implementation of all scenarios affects the electricity industry, in particular the production and use of renewable energy sources.

Table 1. Classification of green projects

Area of investment objects	Investment object	Investment objective
Nuclear power	Electricity and heat supply	Use of low-emission and energy-efficient energy sources
Hydropower		
Wind energy		
Geothermal energy		
Bioenergy		
Atmosphere	Smart filters	Reducing the release of harmful waste into the atmosphere
	Objects with little carbon residue	
Water resources	Smart treatment plants	Reduction of release of harmful waste in water
	Biochemical neutralization of waste	
Greenhouse effect	Low-carbon production methods	Reduction of carboxyl traces
	Treatment plants	
	Preventing the multiplication and enlargement of ozone holes	
Electricity consumption	Economical electric resources	Reducing the volume of energy consumption
Water consumption	Facilities for economical use of water resources	Reducing the volume of water consumption
Use of land objects	Smart ways of extracting land resources	Reducing the use of land, mining and forest resources
	Beneficial use of forest resources	
	Reduction of negative consequences of mining activities	
Transport and transportation	Production of low-carbon raw materials for transport	Increasing the efficiency of logistics and reducing emissions
	Eco-optimal logistics chain	
	Increasing the beneficial use of thermal resources	
IT and telecommunications	Improvement of the cooling system	Increasing environmental friendliness of information devices and services
	Reduction of electrical energy consumption	
Industrial infrastructure	Bringing infrastructural facilities into compliance with modern environmental requirements	Increasing environmental friendliness of infrastructural facilities
	Optimization of the use of resources and the release of harmful substances by infrastructure facilities	

Source: the table is compiled by the author.

If earlier it was customary to talk about the leading countries in the consumption of renewable energy sources, now we are talking about manufacturing companies that consider the use of renewable electricity as part of their corporate responsibility. Thus, in 2017, Clean Edge created a list of Corporate Clean Energy Leaders (CCEL), which includes 37 corporations listed in the United States (Clean Energy Procurement, 2023). Leading companies in the implementation of renewable energy sources are Microsoft, retail chain KOHL's, which uses 100% renewable energy sources in production, Apple (93%), Facebook and Google (35% each), and Goldman Sachs (38%). In developed countries, the main economic sectors with a high environmental culture of conducting business are retail trade, the financial sector, the manufacturing sector, logistics, software, and cloud provision (software/cloud).

The specifics of the development of "green" projects in Georgia are determined by the requirements that are included in the regulatory and legal documents adopted in the last few years in the field of regulation of legal and institutional problems of the country's development, as well as by the long-term strategic planning policy in general. Currently, the main documents regulating the development of the Georgian economy in this direction include the Law of Georgia "Waste Management Code" adopted in 2015 (Law of Georgia, 2015[)], Law of Georgia: Environmental Assessment Code" 2017 (Law of Georgia, 2017[)]; Law of Georgia: "Forest Code of Georgia" 2020" (Law of Georgia, 2020); Law of Georgia on Water Resources Management" 2023 (Law of Georgia, 2023); and other legislative and by-law acts. The analysis and systematization of the requirements presented in the mentioned documents allow the following conclusions to be made.

In assessing the compliance of "green" projects with ecologically important requirements, the following are important: state regulation, statistical accounting, and environmental monitoring of greenhouse gas emissions that characterize the production of products.

As a rule, the subject of monitoring is the emission of greenhouse gases within the established limits, as well as their over-normative indicators, which may be the result of the ineffectiveness of the development and implementation of the "green" project, e.g. In the part of saving energy resources or insufficient accounting of renewable energy sources.

To confirm emissions, methods are used that take into account the consumption of raw materials, materials, energy, and greenhouse gas emissions during the entire technological cycle of production of finished products, taking into account the principles of "green" logistics. This makes it possible to more objectively estimate the amount of greenhouse gases per unit of product or service.

As the practice of many foreign countries shows, the introduction of effective monitoring mechanisms allows the state to gradually specify the optimal tax on

greenhouse gas emissions for business entities, taking into account the volume of Georgian export products.

The analysis shows that taking into account the risks related to the climate, the specifics of the implementation of "green" projects are:

- Assessment of the potential for reducing greenhouse gas emissions according to individual sectors, types of activities, and individual economic entities.
- Assessment of the potential for reducing greenhouse gas emissions as a result of replacing certain fuels and energy resources (coal, diesel fuel, etc.) with "green" energy sources;
- Evaluation of the effectiveness of the implementation of "green" projects;
- Development of resource-raising tools for these projects to increase the energy efficiency of production of products and/or services and reduce greenhouse gas emissions, including: "green" bonds, "green" loans, project financing, climate funds, etc.;

The specifics of the sources of financial risk climate for the development and implementation of "green" projects are discussed in G-20 (G20 Green Finance Synthesis Report, 2017) and FSB documents (Network for Greening the Financial System, 2019), and in high-quality studies intended for the world banking community. The analysis of these and other publications allows us to distinguish two main groups of sources of climate risks: the group of physical risks and the group of risks of the transition to a "green" economy.

Physical risks are the impact of extreme natural and climatic events, such as adverse weather conditions, sea level rise, desertification of territories, reduction of freshwater reserves, soil depletion, forest fires, etc.

The risks of the transition to a green economy arise from the activities of states, institutions, and companies aimed at solving climate change and environmental issues.

The objectives of climate risk management of financial organizations (maintaining financial stability within the framework of prudential supervisory requirements of the regulator) are achieved by assessing and controlling the risks affecting them. In this case, much attention is paid to credit, market, operational, and liquidity risks.

2. Financing support mechanisms for green projects in developed countries

In this regard, let's briefly consider the examples of some leading countries, such as Great Britain, South Korea, and Canada.

Great Britain. The UK government has big ambitions to create a low-carbon, energy-efficient, and environmentally sustainable economy. In Great Britain, active

work on the transition to a green economy began with the adoption of the Climate Change Act 2008, which aims to reduce carbon dioxide emissions by 80% by 2050 compared to the 1990 baseline (Participation Expert Climate Change Act, 2008).

However, the transition to a green economy in the UK will require significant investment. For example, in the energy sector (renewables, carbon capture and storage, electricity transmission, etc.) at least £100 billion is needed; for renewable heat sources – about 10 billion pounds; For energy efficiency of houses – from 14 to 21 billion pounds sterling (HM Government, 2011). At the same time, the Green Investment Bank (GIB) Commission has identified several barriers to investment in UK green projects:

- limits of investment market volume and limited possibilities of accounting balance;
- political and normative risks;
- lack of confidence among investors considering technological risks, lack of transparency of state policy, and high capital requirements for commercialization;
- difficulty in attracting institutional investors Large number of low carbon projects.

The Green Investment Bank (GIB), launched in October 2012, was created by the UK government to remove these barriers and attract investment in green projects. The main goals of this institute are to eliminate market failures and stimulate investments from the private sector in green infrastructure projects. The bank uses the following main instruments: loans and investments in share capital, financing through an investment fund, and guarantees (UK Green Investment Bank, 2015).

To date, the Green Investment Bank has committed £2.3bn to 58 projects across a range of sectors, mobilized £7.8bn of private capital, and matched £3 of private capital for every £1 invested by the government (Department for Business, Innovation & Skills. Future of UK Green Investment Bank, 2015).

Another instrument of state support for financing "green" projects is the British Business Bank, whose main goal is to increase the financing of small and medium-sized businesses. This bank does not directly provide financial resources but works through partners. For example, the VC Catalyst Fund program provides support to venture funds (British Business Bank).

Along with socially responsible investment funds, ethical (socially and ecologically oriented) financial products have emerged: current accounts, savings accounts, lending, insurance, mortgages, etc., i.e. "ethical banking". These services are provided by the following financial institutions: Charity Bank (savings account), Triodos Bank (savings account), Ecology BS (savings account, mortgage), Unity Trust (savings account), Naturesave (insurance), Golden Lane Housing ("ethical" bonds) release).

However, the market share of socially responsible investment funds remains relatively small (just over 1% of total retail funds). This is due to some problems that arise in the development of an "ethical financial market": the large UK banks are not interested in this direction; A high level of control over banks in this market leads to an increase in costs; Lack of consumer awareness; High risks and low return on investment (Brown and Kjell, 2007).

In addition to government support measures for green investment, a market mechanism for financing green projects is emerging in the UK, which includes socially responsible investment funds that finance social and ecologically oriented projects and raise consumer awareness about them.

South Korea. Global warming, high dependence on fossil fuels, and economic crisis have become prerequisites for the transition to a green economy in South Korea. The transition to a green economy began actively in November 2008 with the announcement of the national strategy "Low-Carbon Green Growth" by the President (Lee Myung-Bak). A five-year plan (2009–2013) on green growth was adopted in July 2009 to implement this strategy. According to the plan, 83.6 billion USD should have been spent, which is 2% of the gross domestic product (UNEP, 2010). The main focus of the Korean government is on large construction projects within the framework of the "Green New Course" (restoration of 4 major rivers, construction of 1 million greenhouses, construction of high-speed railway, etc.). Also, the first five-year plan envisaged a strategy that would help attract private investments in this area and included the following stages:

- Encouraging strategic research, development (R&D), and commercialization of technologies in the field of new and renewable energy sources;
- Creation of a new market to stimulate the industrial development of new and renewable energy sources;
- promotion of industrial export;
- Strengthening the potential of economic growth through the creation of infrastructure for the private sector.

According to the OECD report (OECD Economic Surveys: Korea 2022), the main factor hindering private investment in green business and innovation is the availability of financing, especially at the start-up stage. Since traditional mechanisms cannot be used due to risks, for example, the risk of information asymmetry. Therefore, to improve access to finance, the government adopted the Framework Act on Low Carbon, Green Growth, which establishes and requires the government to develop financial instruments to provide direct financial support to green enterprises and to encourage private investment in green infrastructure projects (OECD, 2022).

In South Korea, green financing is done through bank loans and loan guarantees. It can also be done through the venture capital market.

Green bank loans are issued through conventional commercial banks and government financial organizations. In Korea, 75% of all green project loans are provided by banks with government financing. There are three types of green lending: direct lending, refinancing, and the green deposit scheme.

Direct lending is done through government-sponsored banks directly to "green" companies. The scheme where the government sends money to commercial banks through the Korea Finance Corporation (KoFC) and then to green companies is called on-lending. In the Green Deposit Scheme, the government is not directly involved but offers tax incentives to those who invest in "green" projects at low-interest rates (Hyoung-tae, 2011).

To reduce the information risk, South Korea has a "green" certification system, which is spelled out in the country's legislation (Framework Acton Low Carbon, Green Growth). It includes two elements: the Green Certification Committee (GCC) and the Korea Institute of Technology Development (KIAT). The Green Certification Committee determines which technologies and projects can be qualified as "green" based on an evaluation by the Korea Institute of Technology Development (OECD, 2012).

Canada. Canada does not have a federal environmental policy, and it is up to provincial and territorial governments to determine the main direction of its development. This situation has led to various provincial policies regarding the transition to a green economy and attracting green investments. However, the federal government is currently developing a draft Federal Sustainable Development Strategy (FSDS) that covers the following topics: climate change and clean air; supporting water quality and availability; environmental protection; and Reducing the impact on the environment (Environment Canada).

According to a survey conducted by the Canadian Institute for Environmental Law and Policy (CIELAP), we can identify the following factors that hinder the transition to a green economy and the inflow of green investments in Canada:

- Lack of leadership in the "green" economy at the federal level, which creates uncertainty and problems for business;
- lack of public understanding;
- Tensions between stakeholders and the government.

Market instruments for green investments in Canada can be referred to as "ethical banking". For example, the financial cooperative VanCity in Canada offers several financial products in the field of ecology: "green" credit cards (ENVIRO Visa), direct "green" business investments, and auto loans. In addition, the cooperative also provides services in terms of socially responsible investing (open-end funds, term deposits, international term deposits, etc.) (Brown and Kjell, 2020).

Germany. It became one of the first countries to adopt "green" policies, launching its first federal environmental program in 1971. The first oil crisis in 1973 led to a sharp increase in the price of oil, which led to the passage of the Energy Conservation Law (ENEG) in 1976. At the same time, it began to encourage investment in environmental protection through subsidizing interest rates (Gill and Raiser, 2013).

After the G8 meeting in July 2007, the German government set no less ambitious targets for 2020 than the UK:

- Reduction of greenhouse gas emissions by 40%;
- Increasing the share of renewable electricity to at least 30%;
- Increasing the share of renewable heat energy sources to 14%;
- doubling of energy efficiency;
- Double the capacity of combined heat and power production (CHP) with a 25% increase in the volume of electricity production.

In Germany, state financial support for green projects is provided by the national investment bank Kreditanstaltfur Wiederaufbau (KfW), which was established in 1948 to implement the Marshall Plan. The bank is jointly owned by the German federal government (80%) and the local governments of the federal states (20%) (Brack, 2013). The main areas of KfW funding in the field of ecology are renewable energy sources, energy efficiency, and low-carbon transport. The bank supports "green" projects using the following tools (Hubert and Cochran, 2014):

- Cheap preferential lending using several sources of borrowing;
- Lending with the help of an intermediary;
- Direct lending: raising appropriate private funds through consortia (KfW allocates up to 50% of long-term financing);
- targeted subsidies to increase energy efficiency;
- assistance through fund structures;
- Guarantees and risk distribution through the lending system;
- sectoral guarantees;
- Provision of external expertise.

The bank carries out investment activities mainly by providing preferential loans through lending to local financial organizations. In the case of financing large projects, KfW provides direct lending at market rates, which eliminates market breakouts.

For the financing of "green" projects in Germany, as a separate state support measure, we can single out the Feed-inTariff (FIT) program, which encourages investments in renewable energy sources. According to this program, it is necessary to include producers of electricity from renewable sources in and purchase this electricity. The financing of this program is carried out by the distribution of costs to all consumers, which ensures a low cost of electricity Warren et all, 2012).

In addition to the State Investment Bank, several financial organizations in Germany provide "ethical financial products" (environmentally and socially oriented) or "ethical banking": GLS Bank, TriodosBank, Umweltbank, and EthikBank.

3. Transformation of natural-climatic risks into corporate-credit risks.

One of the main obstacles to the development of effective "green" projects is the lack of understanding of the mechanism of converting climate risks into financial ones. Financial companies may be directly exposed to climate risks of a physical nature, for example, if they are located in areas with a high risk of natural disasters and natural disasters such as floods, forest fires, droughts, or heavy snow. In addition, climate risks have a major impact on company and borrower risks. Physical risks can affect companies and the economy as a whole with short-term shocks or long-term changes.

The transition to a green economy will require significant current and future investments, with a high probability of additional investments during the life cycle of projects. Currently, most of the world's countries are trying to abandon predominantly public financing of "green" projects and are actively encouraging the attraction of private capital in this area (Bon-Gang, 2013).

However, the implementation of "green" projects, especially large-scale projects, for private investors is associated with several risks, the main of which are:

- Political risks – changes in the political system, changes in the government and political course, etc., which may lead to significant changes in the legal system and unrest in society;
- Macroeconomic risks - fluctuations in economic conditions and raw material prices, interest rates and exchange rates;
- Economic risks - changes in tariffs, and mineral resource subsidies, which will affect the economic viability of the eco-project (Tao et all., 2019);
- Technological and operational risks – non-achievement of the target production and financial indicators by economic entities, necessary measures, electric and water supply networks, etc. due to non-existence or unreliability;
- Security risks - lack of support for the implementation of "green" projects from the state and other institutions (Criscuolo and Menon, 2015);
- Specific risks due to the characteristics of "green" projects – a relatively low rate of internal rate of return (IRR) and a longer discounted period of buildings compared to projects in other fields ((Wang and Zhi, 2016).

Therefore, to mobilize private investments, the risks of investing in "green" projects should be minimized and should be reduced to the risks of investing in projects implemented using traditional technologies. For this purpose, the instruments and levers for encouraging private investors are used in world practice to stimulate the financing of "green" projects, which are given in the table. (see Table 2).

Table 2. Tools and levers for encouraging private investors to finance green projects

Types of incentives	Incentive tools and levers	
State regulation	instruments	tax credits; implementation of standards; Cancellation of support for "non-green" companies
	levers	preferential tariffs (Feed-in tariff); Quotas on renewable energy
State funding	instruments	grants; subsidies; Environmental programs
lending	instruments	project financing; green funds; Green bonds
	levers	Favorable credit rates.
Reducing risks	instruments	credit guarantees and guarantees; insurance; Hedging against exchange rate and interest rate fluctuations

Source: the table is compiled by the author.

First of all, it should be noted the importance of state policy in creating favorable conditions for attracting private investors in the "green" economy (Robyn et all., 2018); Increasing the share of "green" companies using environmentally friendly technologies and increasing the responsibility of business and society for nature protection.

Transitional risks and requirements for business, characteristic of the process of developing and implementing a "green" political-economic paradigm in the country, can take the following main forms:

1. The introduction of technological innovations, lead to a decrease in the costs of renewable energy and, as a result, to a fall in the prices of mining raw materials.

2. The introduction of green regulatory policies, which will lead to a sharp increase in carbon prices. The introduction of cross-border carbon regulation, which is being actively developed by EU countries, could have a significant impact on pricing.
3. Changing consumer preferences and increasing loyalty to "green" companies.

The factors described above can primarily affect carbon assets. The cost of cross-border carbon regulation for Georgia is increasing every year. Naturally, all this will lead to a review of the qualitative and quantitative assessment of credit risks by both lenders and borrowers of resources.

4. Financing mechanisms of "green" projects in Georgia

In Tamuna Georgia, as in many countries of the world, the process of "greening" of the economy is underway, which is regulated by the legislation of Georgia and by-laws (a short list of which is given in subsection 1 of the paper, pp. 5–6). The National Bank of Georgia has taken important steps regarding the regulation of financing of green projects. By the order of the President of the National Bank on August 3, 2022, the rules for classifying and reporting loans according to the taxonomy of sustainable development were approved (National Bank of Georgia, 2022). According to this rule, commercial banks should develop such a classification system, which will help identify economic activities promoting environmental and sustainable development and promote sustainable financing of "green" projects. This order defines a green loan, it is used to finance economic activities that belong to the green taxonomy. The rights and obligations of commercial banks in the field of financing green projects are explained here.

Also, the National Bank developed and published the project of taxonomy of sustainable development, which discusses the important issues of green, sustainable development and serves the purpose of its further realization in Georgia.

An important role in the financing of green projects is played by international organizations such as the United Nations Environment Program (UNEP) and the Organization for Cooperation and Development (OECD), with the help of which the state bodies that work on the financing of green projects are supported. Also, with their help, necessary investments and measures in the green sector are determined. Also, with the help of the "European Union for Environmental Protection" program, the volume of necessary investments for the financing of projects in the green sector of Georgia is being determined, and the project on issues of green bonds has been started and is ongoing.

In conclusion, we can conclude that, despite many measures and programs, a clear system of state support for financing "green" projects has not been established in Georgia: there is no clear concept of "green" investments and projects, there is no unified body responsible for the policy of transition to a green economy. Also, in contrast

to the foreign countries discussed, little attention is paid to methods of attracting private capital in the financing of "green" projects (for example, "green" banks in Great Britain), which is of crucial importance for the development of the "green" economy.

Conclusion

One of the new world trends of modern world development is the "greening" of the economy, which requires constant support from the government. The experience of foreign countries (Great Britain, South Korea, Canada) showed the importance of this area and what measures were taken for a successful transition to a green economy.

The analysis showed that the reviewed countries have developed effective mechanisms to support the financing of "green" projects, which include: "green" state banks; preferential tariff program (Feed-inTariff (FIT)); specialized state credit institutions; environmental taxes, tax deductions and benefits; "Ethical banking" and other green financing tools. At the same time, the state, not the market, plays an important role in financing "green" projects.

In Georgia, the system of government support measures for "green" investments is at the stage of formation. The Fourth National Program of Environmental Protection Actions of Georgia for 2022–2026 has been developed, which includes issues of financing green projects. But unlike developing countries, today it has several shortcomings and needs to be improved since there is no clear and understandable system of financing support for "green" projects, one responsible government body. Therefore, without the necessary legal framework and state support, the market mechanism remains extremely underdeveloped and may include only self-financing carried out by large companies, but this is not widespread.

Thus, the research results allow us to conclude the importance of the state support mechanism for financing "green" projects. To increase the financing of green projects in Georgia, it is necessary to create a clear and understandable system of state support for business and state structures in the field of attracting, accumulating, and using green capital.

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Aktualne zagadnienia finansowania „zielonych" projektów

Streszczenie

W opracowaniu analizie poddano problem braku skutecznych mechanizmów finansowych i ekonomicznych przyciągających inwestycje w projekty ekologiczne w celu zapewnienia zrównoważonego rozwoju gospodarczego w Gruzji. Celem pracy jest określenie głównych kierunków finansowania projektów proekologicznych w tym kraju na podstawie analizy trendów światowych. Główne kierunki „zielonych" inwestycji rozpatrywane są w oparciu o cele zrównoważonego rozwoju opracowane przez

Organizację Narodów Zjednoczonych, zgodnie z przyszłymi scenariuszami rozwoju gospodarki światowej i z ekologicznym („zielonym") prowadzeniem biznesu. Aby sfinansować „zielone" projekty, bada się główne narzędzia i dźwignie wspierania inwestorów prywatnych, które obejmują środki regulacji rządowych, finansowanie publiczne, pożyczki i redukcję ryzyka. Sektorowe kierunki „zielonych" inwestycji w Gruzji to przede wszystkim sektory związane z najbardziej energochłonną i zasobochłonną produkcją (zaopatrywanie w energię elektryczną i ciepło, górnictwo, transport, informatyka i telekomunikacja, infrastruktura przemysłowa) oraz najważniejsze działania stymulujące inwestycje prywatne. Preferencyjne kredyty i gwarancje kredytowe mogą być stosowane w „zielonych" projektach, w szczególności w projektach recyklingu i ponownego wykorzystania odpadów, tworzeniu i wdrażaniu technologii energooszczędnych i przyjaznych dla środowiska. Rozwój „zielonych" obligacji wymaga ram regulacyjnych, odpowiednich standardów i rządowego mechanizmu wsparcia oraz tworzenia „zielonych" banków (przy udziale państwa i instytucji rozwoju). Problem zanieczyszczenia środowiska jest jednym z najpilniejszych we współczesnym świecie, a od jego rozwiązania zależy przyszłość wszystkich krajów. W 2015 r. Organizacja Narodów Zjednoczonych wyznaczyła 17 celów zrównoważonego rozwoju, z czego 7 ma na celu rozwiązywanie problemów środowiskowych, i ustaliła, że zrównoważony rozwój gospodarczy obejmuje działania społeczno-gospodarcze obecnego pokolenia bez szkody dla przyszłych pokoleń.

Słowa kluczowe: „zielona" gospodarka, „zielone" projekty, instrumenty finansowe, zagrożenia klimatyczne, ryzyko kredytowe przedsiębiorstw, produkty węglowe

Current Issues of Financing "Green" Projects

Abstract

The urgency of the problem to be studied is due to the lack of effective financial and economic mechanisms for attracting investments in ecological projects to ensure sustainable economic development in Georgia. The purpose of the work is to determine the main directions of financing environmental projects in the country based on the analysis of global trends. The main directions of "green" investments are considered following the sustainable development goals developed by the United Nations, according to the prospective scenarios of the world economy, with the ecological ("green") conduct of business. To finance "green" projects, the main tools and levers for supporting private investors are studied, which include government regulation measures, public financing, lending, and risk reduction. The sectoral directions of "green" investments in Georgia are, first of all, sectors related to the most energy- and resource-intensive

production (electricity and heat supply, mining, transport and transportation, IT and telecommunications, industrial infrastructure), and the most important measures to stimulate private investments Preferential lending and loan guarantees can be used in "green" projects (in particular, waste recycling and reuse projects, creation and introduction of energy-efficient and environmentally friendly technologies); The development of "green" bonds (which requires a regulatory framework, appropriate standards, and a government support mechanism) and the creation of "green" banks (with the participation of the state and development institutions). The problem of environmental pollution is one of the most urgent in the modern world, and the future of all countries depends on its solution. In 2015, the United Nations developed 17 sustainable development goals, seven of which are aimed at solving environmental problems, and it was determined that sustainable economic development involves the socio-economic activities of the current generation without harming future generations.

Keywords: "green" economy, "green" projects, financing instruments, climatic risks, corporate credit risks, carbonaceous products

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