
ҚАРЖЫ-НЕСИЕ ЖҮЙЕСІ ФИНАНСОВО-КРЕДИТНАЯ СИСТЕМА FINANCIAL-CREDIT SYSTEM

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Kazakhstan and foreign experience in financing and encouraging eco-innovation projects

The article deals with the essence of eco-innovation projects and «green» technologies, studied the sources of financing of innovative projects in existing foreign and domestic practice. The main aspects of the activities of the International Development Bank in promoting sustainable «green» growth in member states of European Business Development Association are described. The purposes, tasks, the principles of support and stimulation of innovative projects, various institutes are revealed. Results of studying of the existing sources of financing of innovative projects on priority spheres of development of economy are systematized and conclusions are drawn on a possibility of practical application of these mechanisms.

Keywords: eco-innovation, «green» technologies, eco-innovation project, the sources of funding, financing, development institutions.

The emphasis on innovation policy focused on solving environmental problems, it has become one of main trends during the recent financial and economic crisis. The development of green technologies was considered by countries as a powerful engine of economic growth. Most clearly «green» orientation of innovation policy emerged in countries such as Belgium, Hungary, Canada, China, the Netherlands, Portugal, USA, France, Japan and others.

As one of measures of adaptation to climate change consequences, these countries are seeking new ways to enhance the use of environmentally friendly technologies. To achieve success in this direction, they need to create the conditions favorable for acceptance and distribution of environmentally friendly technologies.

The study of the literature on this subject has revealed the lack of a common definition of the concept of «green», or environmentally clean (environmental) technologies, eco-innovation. A common approach involves reaching their main goal - to improve the environment due to the reduction of negative impact on her:

- emission reductions of pollutants,
- energy efficiency and energy conservation, waste reduction,
- improve the design to reduce the amount of resources consumed, re-use of materials,
- creations of biologically decomposed products, rational use and improvement of quality of water resources and so forth.

In 2006, Prince Hassan of Jordan said: «The markets of the future — a green» [1]. With this statement he predicts prosperity for some ecological-niche markets, but expressed the belief that the environmental aspect in the future on the major markets of the world will be one of the most important, because the resources are valuable, the energy will not be cheap, so we will appreciate environmental amenities more than now. This is - a clear reflection of a new way of thinking. We need alternative energy resources, processes with high resource efficiency, waste management systems, processing and more stable water management me-

thods rather than devices for pollution control at the end of the production cycle. This need is particularly high in the developing countries.

Eco-innovation can thus get a wider meaning, which makes them more relevant to businesses and consumers. Now the market of eco-technologies is estimated differently, so for example, consultants «Berger» predicted the global market of eco-technology 2.200 billion euros in 2020.

Existence of a large number of various definitions doesn't allow to operate with exact statistical data on what innovations, rather it is a question of assessing the magnitude of their development based on different approaches and values. Various organizations differently classify eco-innovations. Some of them have very wide, general character, others more concrete and technical. The maintenance of a concept of an eco-innovation depends also on a context – for example in the sphere of power, resource management or waste management.

So, for example, for data collection, researchers of the project of Estimation Eco-innovation (funded by the Directorate General for Research of the European Commission) examined various methods for determining the eco-innovation [2]. Usually, eco-innovations can be determined narrowly as the innovations specially developed for pollution abatement of the environment. In a broader sense, researchers of the Estimation of the Eco-innovation (EWI) determine eco-innovations on the basis of ecological efficiency which will be estimated taking into account lifecycle.

According to criteria of the European platform, eco-innovation increases in resistance to load of the environment or achievements of more effective and responsible use of natural resources are considered as any form of the innovations directed to significant and demonstrable progress in the direction of goal achievement of sustainable development due to decrease in impact on the environment [3].

Thus, eco-innovation is the production, assimilation or operation of a product, the production process, services, management or a business method which is new to the organization (development and adaptation) and as a result decreases environmental risk, pollution and other negative consequences of use of resources (including energy uses) in comparison with the corresponding alternatives. Proceeding from it, a paramount task of modern economy is creation of effective mechanisms of attraction of financial resources under the investment projects having the high importance for social and economic development of the Republic of Kazakhstan.

In modern literature as sources of financing of eco-innovative projects the following is allocated:

- 1) self-financing, i.e. financing of eco-innovative projects at the expense of own means of the companies;
- 2) equity funding: the issue of shares, etc
- 3) credit financing (investment loans of banks, bond issue and other);
- 4) budget financing (attraction of financial resources of the government budget for financing of what and innovative projects in priority industries of economy);
- 5) project finance (in the broad sense - a way of mobilizing the various funding sources and the use of different methods of financing for the implementation of a specific eco-innovation project, in the narrow sense - the financing of the investment project, repayment of funds to which is provided by the generated this project arrived and there an optimal distribution of risks);
- 6) leasing;
- 7) the mixed financing (attraction of various sources of means for financing of eco-innovative projects) [4–7].

Thus, depending on subjects of investing activities the listed sources can be divided on internal and external (for the state or regions) both own and attracted (for the separate organizations accumulating funds for implementation of specific investment projects).

The authors have carried out the collection and systematization of data on existing sources of financing eco-innovation and 'green' technologies in priority areas and subjects of investment activity, and obtained the following conclusions:

- 1) there are international and internal sources of financing, the first gained the greatest distribution in the countries of OECD when the governments push certain ecological tasks. A part of means arrives from the budget generally in the form of tax and other benefits, and the entities allocate considerable own funds. Leasing companies successfully function in many countries, but not in all countries leasing transactions covered nature protection activities. Special investment funds are created for financing of large infrastructure projects according to the solution of environmental problems;

- 2) the activities of the international funds, such as the EBRD, IBRD, the World Bank and others whose means are formed by contributions from member countries, primarily aimed at financing projects in areas

marked as priority worldwide: environmental security, energy, high-tech innovation sphere, transport infrastructure, agro-industrial sector;

3) the governments of developing countries can get access to external financing of the investments necessary for mitigation of the consequences of climate change, using procedures of the Clean Development Mechanism (CDM). Within the international agreement known as the Kyoto protocol, the advanced industrial countries undertook liabilities on decrease in emissions of greenhouse gases. The possibility of accomplishment by the countries of the liabilities according to the Kyoto protocol by support to the project on decrease in amount of the mentioned emissions in any developing country is provided in the specified agreement. For accomplishment of such projects the country can obtain the certified credits for emissions, which are traded on such trading floors as system of trade in quotas for emissions in the European Union. Industrialized countries can purchase such credits and use them for a covering of a part of the emission reduction commitments established according to the Kyoto protocol;

4) the Ecological Funds (EF) were widely adopted in countries with economies in transition in Central and Eastern Europe and the CIS and are at a different stage of development: from financing and implementation of large effective investment projects (Poland and Hungary) to the solution of questions of forming of profitable base at the legislative level (the country of Central Asia). EF were created for financing of mid-term and long-term ecological projects in those countries where the financial markets were poorly developed, the bank rate is rather high, and financial institutions didn't see the interest in crediting of ecological projects.

The most known international funds of support of regional what and innovative projects are provided in Table 1.

Table 1

International funds to support eco-innovation projects

№	Fund	Characteristic
1	Eco-Innovation Platform (Eco-IP)	The initiative aims at developing and testing new projects, support for innovation and innovative mechanisms for small and medium-sized enterprises, in particular, in the process of industrial and regions. Eco-IP platform brings together public and private partners from different countries who are willing to cooperate in the development of new forms of innovation support, acceptance of eco-innovative solutions, taking into account the specific needs of companies.
2	Nordic Environment Finance Corporation (NEFCO)	Financing is intended for considerable small and average what and innovative projects. All actions are concentrated on creation of the positive ecological results oriented to receipt of notable, positive impacts on the environment in the Northern region, in particular, the Baltic Sea – for the investment account from neighboring countries of Central and Eastern Europe. Reducing pollutants affecting the Baltic Sea since then is a priority for financial activities.
3	Green Climate Fund (Green Climate Fund)	The Fund is a unique global platform for responding to climate change, investing in emissions reductions and increase resilience to climate change. GCF was established on the initiative of the Governments of 194 countries to limit or reduce greenhouse gas emissions in developing countries, and to help vulnerable communities adapt to the inevitable impacts of climate change. GCF is accountable to the United Nations and the principles and provisions of the UN Framework Convention on Climate Change. The Fund is managed by a board of 24 representatives from developing and developed countries.
4	Global Environment Facility (Global Environment Facility, GEF)	It is independent international financial institution whose activities are implemented through the Development program of the UN, the Program for the environment the UN, and the World Bank. The fund was created in 1991 and unites the governments of 181 countries. GEF provides grants to developing countries and countries with economies in transition for projects implementation on subject of a biodiversity, climate change, international waters, degradation of lands, an ozone layer and steady organic pollutants. These projects promote environment protection, lashing environmental problems of local, national and global levels and making a contribution to sustainable development.

Footnote. Made by authors on the basis of a source [2–9].

By results of the summit of Rio +20 the six development banks declared intention to considerably expand the investments into sustainable development. The application was signed by the African development bank, ABR, the EBRD, EIB, Inter-American Development Bank and Group of the World Bank. Development banks noted need of transition to «green» growth, which is a key step on the way to sustainable development and prosperity in the statement. On the territory of the EDB participating states IDB is the main source of long-term financing of «green» investments, especially in the field of enhancing energy and resource efficiency. The limited public finances, especially at a time when most governments have to pursue a policy of austerity, does not allow too much to rely on public investment. In these circumstances, the growing importance of private financing and the private sector, which is assigned the main role in the «green» transformation [10].

Eurasian Development Bank since 2006, was funded 31 projects in the field of energy efficiency for more than \$ 2 billion in the Member States. In Belarus, EDB finances construction of Polotsk hydroelectric power plant (HPP), which is a part of the large-scale construction project of the cascade from four stations on the total Western Dvina River capacity to 130 MW. It will also include Vitebsk, Beshenkovichi and Verkhnedvinsk HPP. Capacity of the new station will make 21.75 MW, annual electricity generation of 112 mln kWh. Also in the sphere of renewable power with assistance of EDB the construction project of windfarm in Kazakhstan is implemented by capacity of 45 MW. According to aggregative estimates, the overall reduction in greenhouse gas emissions through the implementation of the project is 1.6 million tons.

For the purpose of increase in an energy efficiency of small and medium business Eurasian Development Bank works with financial institutions of the region, providing them credit lines on the purpose of increase in an energy efficiency, decrease in power consumption of productions and improvement of indicators of a resources consumption. Within such projects small and medium scale enterprises have an opportunity of decrease in power consumption of productions due to replacement and upgrade of the equipment, implementation of new technologies, and also increase in indicators of resource-saving [11].

According to the WB, adaptation to climate change and increase in an energy efficiency remain strategic priorities for the region of Europe and Central Asia which economy is the most power-intensive in the world. Increase in an energy efficiency provides both ecological, and economic benefits for the region. In 2014 The World Bank directed about \$4 billion to environmental protection and rational use of natural resources. At the same time about \$0.6 billion (11% of the amount of financing in the region) were allocated for the region of Europe and Central Asia on financing of environmental measures and the solution of social problems in 2014 [12].

In 2013, EBRD started a new Initiative in the field of steady resource use (FSR) (continuation of the Initiative in the field of the steady power approved in 2006). The initiative is aimed at the development of sustainable energy, increasing resilience to climate change and resource efficiency - all this is one of the important components of the Bank's strategy. The Bank has the climate projects in all sectors and countries of its investment operations. These transactions include both support wind, solar and hydro power projects as well as investments in improving resource efficiency in enterprises and in the housing sector, the development of «green» transport and municipal infrastructure, reduce transmission losses and increase sustainability of hydropower plants. An example of the EBRD, to promoting sustainable development in the energy sector, is the project of modernization Kairakkum HPP in Tajikistan. HPP modernization program will not only expand its capacity by installing two new, larger turbines, but also to improve its efficiency, reduce water loss and energy. In addition, the bank funds will be used to finance the installation of equipment that will enhance safety and improve the distribution of electricity in Sugde- second largest industrial region of the country. For the realization of the project the EBRD is providing \$ 50 million (for a total \$ 76 million cost of the project) [11].

The active position on «green» financing in the region is taken the European Investment Bank. Financing of EIB of the projects promoting further development of renewable energy resources and increase in an energy efficiency directly promotes decrease in emissions of greenhouse gases. In 2014, about €8 billion [11] were directed to these purposes. EIB is the institute conducting in the EU financing a construction of the wind power stations (WPS) both on the land, and at the sea.

In 2014, the Bank financed the construction of 12 wind power plants. It is known, the construction of WPP - a long-term project that requires significant financial and technical resources. The EIB is not only financing such programs, but also provides technical expertise borrowers. The bank also participates in the financing of projects in solar energy and photovoltaic (in 2014 the bank were subsidized nine). According to the «climate» mandate of the EIB, is not less than 30 % of the allocated funds should be focused on measures for climate change mitigation or adaptation.

In Europe and Central Asia, which includes the states - participants of the EDB, IFC is actively working in the field of financing of projects that promote «green» growth. Only in 2014, it has invested about \$ 500 million in «green» projects. IFC is implementing a program to finance sustainable energy, which is aimed at creating a sustainable market for energy efficiency investments and renewable energy sources. The corporation works with local and international financial institutions of the countries of the region within the program. Since 2010, the development program of the resource efficiency is implemented here. The program is directed to stimulation of investments into development and implementation of resource-saving technologies; improvement of management processes in all sectors of the industry; increase in awareness of the public and financial institutions. The document is implemented in all State Parties of EDB, except Russia. In Russia, the IFC actively realizes several directions in the sphere of increase in an energy efficiency and development of renewable power through local financial institutions.

Asian Development Bank has repeatedly stated intention to invest in the region in sustainable energy, agriculture and infrastructure. The main task is the stimulation of growth of economy in Asia and in the Far East, sending direct loans to these regions and rendering technical assistance. Annually about \$3.2 billion are allocated with bank in the «green» projects promoting decrease in negative climatic impact and also for adaptation to climate change. For example, in Tajikistan (2014) the «Access to «Green» Financing of Renewable Energy Resources» project financed, funded by the ADB, with technical assistance from the Japan Fund for Poverty Reduction, as well as co-financing sub-borrowers and the Government of the Republic of Tajikistan. The aim of the project is to develop and strengthen the capacity of the microfinance system of Tajikistan and the organization of energy-efficient, economical and environmentally friendly homes through the provision of micro-credits to households. ADB's main program in the region are projects in the field of infrastructure development. In their training, the support and funding of the bank adheres to the highest principles and standards of impact assessment on the environment [13].

The wide list of financial products, including commercial loans, is offered by various funds, the state corporations and other organizations which task consists in provision of full support to investment projects in the priority directions of development. Opportunities to attract funds from international financial institutions such as the European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), International Bank for Reconstruction and Development (IBRD) extended. These institutions represent a wide range of programs carried out jointly with JSC NMH «Baiterek» and other large domestic structures on the allocation of grants or concessional loans for the development of priority sectors of Kazakhstan's economy (Table 2).

Table 2

Sources of financing eco-innovation projects

№	Sector	International sources	The Republic of Kazakhstan
1	2	3	4
1	Energetics	European Bank for Reconstruction and Development (EBRD); The Eurasian Development Bank (EDB); The European Investment Bank (EIB); The European Commission; Nordic Environment Finance Corporation (NEFCO) - Investment Fund; Green Climate Fund (Green Climate Fund)	JSC «Development Bank of Kazakhstan», JSC «Kazyna Capital Management», JSC «Investment Fund of Kazakhstan», JSC «KazExportGarant» and LLP «Kazakhstan Project Preparation Fund»
2	Biotechnology	Asian Development Bank, The European Commission; Eco-IP platform; The Global Environment Facility (Global Environment Facility, GEF)	The Asian Development Bank JSC «National Agency for Technological Development» JSC «NC» KazAgro»»
3	Nanotechnology	Asian Development Bank, The Green Climate Fund (Green Climate Fund)	The Asian Development Bank JSC «National Agency for Technological Development»
4	Oil and Gas, Chemistry	European Bank for Reconstruction and Development (EBRD)	JSC «Development Bank of Kazakhstan», JSC «Kazyna Capital Management», JSC «Investment

1	2	3	4
			Fund of Kazakhstan», JSC «Kaz ExportGarant» and LLP «Kazakhstan Project Preparation Fund»
5	Mechanical engineering	European Bank for Reconstruction and Development (EBRD)	JSC «Development Bank of Kazakhstan» JSC «Kazyna Capital Management», JSC «Investment Fund of Kazakhstan», JSC «Kaz ExportGarant»
6	Science and Innovation	U.S. RUSSIA FOUNDATION FOR ECONOMIC ADVANCEMENT AND THE RULE OF LAW; British venture fund; Top Technology Ventures Ltd; Multilateral Investment Guarantee Agency, MIGA; the Eurasian Development Bank (EDB); The European Investment Bank (EIB); The European Commission; Finnish National Fund for Research and Development (Sitra); German Research Society (DFG); The Global Environment Facility (Global Environment Facility, GEF)	JSC «Development Bank of Kazakhstan», JSC «Kazyna Capital Management», JSC «Investment Fund of Kazakhstan», JSC «Kaz ExportGarant» and LLP «Kazakhstan Project Preparation Fund»
7	Infrastructure	European Bank for Reconstruction and Development (EBRD); The Eurasian Development Bank (EDB); The European Investment Bank (EIB); The European Commission; The Eurasian Development Bank (EDB); Green Climate Fund (Green Climate Fund)	JSC «Development Bank of Kazakhstan» JSC «National Innovation Fund»; JSC «National Agency for Technological Development»
8	Small and medium businesses	U.S. RUSSIA FOUNDATION FOR ECONOMIC ADVANCEMENT AND THE RULE OF LAW; US Russia Center for Entrepreneurship; «Eurasia» Foundation; The European Investment Bank (EIB); The Global Environment Facility (Global Environment Facility, GEF); Nordic Environment Finance Corporation (NEFCO)	JSC «National Innovation Fund»; JSC «Small Entrepreneurship Development Fund» Damu»; JSC «NC» KazAgro»»

Footnote. Made by authors on the basis of a source [11–13].

Realization of specific objectives of the Concept by sectors of economy which carried out through the existing program documents: The program for the development of agro-industrial complex in the Republic of Kazakhstan for 2013-2020 years.- «Agribusiness-2020», the state program for accelerated industrial-innovative development of Kazakhstan for 2010-2014 and 2015-2019 years, The Strategy «Kazakhstan-2050», the state program of development of education of the Republic of Kazakhstan for 2011-2020, development programs of territories, strategic plans of public authorities and the industry programs directed to the solution of such questions as improvement of quality of air, waste management of production and consumption, fight against desertification and degradation of lands, increase in soil fertility, development of fishery, aquacultures and reproduction of fish resources.

In order to implement the tasks necessary to further improve the regulatory and legal framework. JSC «NMH» Baiterek», as the tool of the Government in the field of industrial and innovative development and implementation of state programs will be a major flagship support eco-innovation projects and «green» technologies.

The structure of JSC NUH Bayterek Holding includes 11 affiliated organizations:

–the institutes of development participating in financing, investment and export support of large projects and the enterprises, implementation of the State program of industrial and innovative development for

2014-2019: SC «Development Bank of Kazakhstan», JSC «JSC «Kazyna Capital Management», JSC «Investment Fund of Kazakhstan» JSC «IC «KazExportGarant» and LLP «Kazakhstan Project Preparation Fund»;

–institutions that support the development of innovation activities of small and medium-sized businesses and implement the program «Business Road Map 2020»: JSC «National Agency for Technological Development» and JSC «Damu Entrepreneurship Development Fund»;

–financial institutions and national companies involved in the implementation of projects in the field of real estate, housing and construction savings and the implementation of the state program «Development Program Regions 2020»: JSC «House Construction Savings Bank of Kazakhstan», JSC «Kazakhstan Mortgage Company», JSC «Baiterek Development», JSC «Kazakhstan mortgage guarantee Fund» [13].

One of the institutions that provide investment project in the Republic of Kazakhstan is the Kazakhstan Development Bank. Under the state program of industrialization, JSC «Kazakhstan Development Bank» plays the role of main investment institute of the country, providing financial support to the private sector and government initiatives (in terms of infrastructural projects) by providing medium- and long-term low-interest loans to non-primary sectors of the economy. One of the main activities of the Bank of Development is a long-term financing of investment projects and export transactions bearing significant social and economic impact on the Kazakh economy by direct financing of large scale projects in the field of manufacturing and industrial infrastructure. The total amount of investment projects and programs financed by the Bank amounted to 1,691 bln tenge.

Due to the high level of credit load of existing enterprises and the lack of sufficient collateral, DBK intends to more actively apply new and existing funding instruments, including mezzanine lending and project financing.). For 14 years, 79 investment projects launched with the financial support of the Development Bank. The total cost of projects is 786,2 billion tenge (Fig. 1).

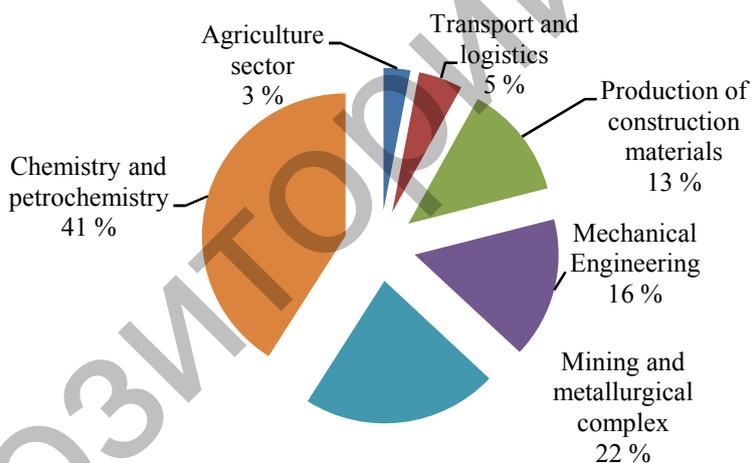


Figure 1. The sectoral structure of approved investment projects and export operations to the amount of the loan in 2015

In the sectoral structure of approved investment projects and export operations, the largest specific weight is the share to projects in chemistry and petrochemicals (41 %), metallurgical industry (22 %), mechanical engineering (16 %) and production of construction materials (13 %). The investment projects and export operations of the Bank for Development are implemented in all regions of the country. Moreover, among the highest share of approved projects were for projects and export operations in Pavlodar (22 %), Mangistau (16 %), West Kazakhstan (16 %) and Kyzylorda (16 %) regions.

The projects of Development Bank approved in reporting year make a contribution to development small and monotowns such as Karatau, Aksay, Kentau, etc., and also in the rural zone (Fig. 2).

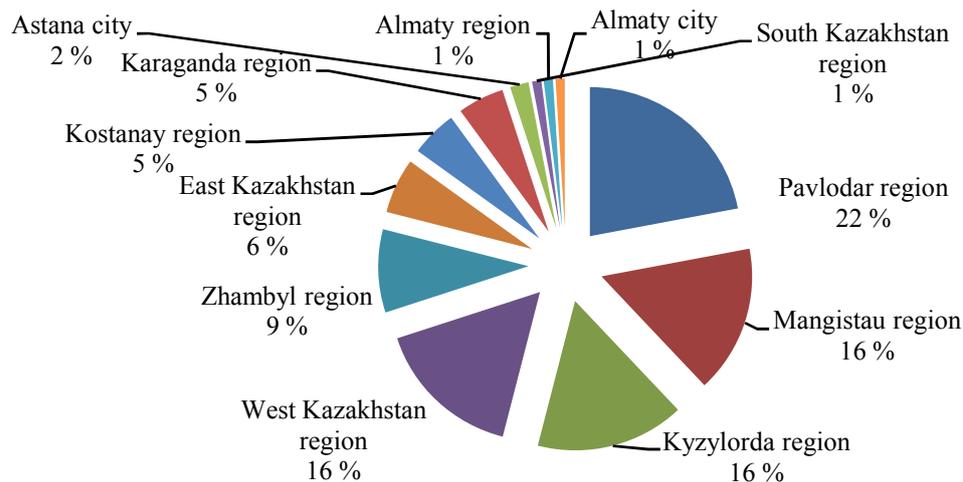


Figure 2. Regional structure of approved investment projects and export operations to the amount of the loan in 2015 [14]

Nowadays there is a program of funding of regional priority projects of SMEs «Damu regions III» in Kazakhstan. Through these programs, citizens can get a preferential credit for the discovery or development of business, working capital financing, acquisition of new and modernization of fixed assets, a soft loan shall be issued for up to 84 months, interest rate of not more than 14 % per annum. The maximum amount per borrower to 500000000 tenge. Credit is given in KZT. People can also apply for subsidies or guaranteeing the program «Business Road Map 2020». The program involves the partner banks, such as JSC «Eurasian Bank»; JSC «DeltaBank»; SO JSC «Bank VTB (Kazakhstan)»; «Nurbank»; «KazInvestBank»; JSC «Tsesna Bank»; JSC «Bank CenterCredit»; JSC «Sberbank of Russia».

This credit is available to small businesses whose activities are included in the list of priority sectors of the economy. These include individual entrepreneurs with annual average number of employees up to 50 people. Legal entities, with the annual average number of employees to 50 people, and the average annual value of assets not exceeding 60,000 MSI; medium-sized business entities, whose activities are included in the list of priority sectors of the economy. These include individual entrepreneurs with annual average number of employees more than 50 people. Legal entities with annual average number of employees from 50 to 250 people and the average value of the assets does not exceed 325 000 MSI.

According to the State program industrial innovatively to development of the Republic of Kazakhstan for 2015-2019 direct project and venture financing of new innovative projects is provided, for the purpose of stimulation of diversification and increase in competitiveness of processing industry [15].

Currently, JSC «National Innovation Fund» (Fund, JSC «NIF») is engaged in the design of innovative investment projects. The fund finances innovative projects for sustainable development of new technologies in Kazakhstan. Foundation specialists are constantly searching for innovative ideas that contribute to the development of non-oil sector of the economy of Kazakhstan. The Foundation provides funding of innovative projects by non-controlling equity participation. One of the most important components in the selection of innovative projects submitted to the Fund, is their innovativeness. JSC «National Agency for Technological Development» carries out work to support innovative projects and promote the transfer of technologies in priority sectors, including through the provision of innovative grants and development of innovation infrastructure. At the same time to support strategic innovation projects, innovation grants will be enlarged for the acquisition of technologies and industrial research. In order to strengthen interaction between business and science, grants will be provided for the implementation of targeted technology programs. Also providing innovative grants will be worked on prototyping for participation in public contracts, support venture capital projects, the establishment of industry competence centers, the creation of databases of test and automation industries [16, 17].

In 2015, JSC «National Agency for Technological Development» has allocated more than 1.6 billion tenge groundwater resources to support 51 projects [13]. Among the supported projects there is a production of traction transformers of new generation for electric locomotives, sensors for spacecrafts. About 800 jobs were created during the implementation of projects in 2015, including about 400 - on enterprises and about

350 - in start-up projects. Grantees have paid more than 1.25 billion tenge taxes and released products in the amount of 22 bln. tenge. The share of exports to foreign markets is about 8 bln. tenge [18].

Thus, at the present stage is marked the dynamic development of the financial infrastructure of the Republic of Kazakhstan, promoting the rise of investment activity. Besides, possibilities of attraction of financial resources extend at the expense of the foreign and international sources ready to co-finance what and innovative projects in the separate directions in the form of grants, the soft long-term loans, etc. Therefore, to create a favorable institutional environment in Kazakhstan, it is necessary to use measures such as legal support, the use of the mechanism not only tax but also the customs privileges and preferences, simplification of foreign exchange regulation and control procedures, comprehensive development of small and medium-sized businesses. The system of priority measures for the development of the republic's innovative space to support «green» initiatives should include the following:

- 1) the development of normative legal acts of regional authorities aimed at creating favourable conditions for the development of the subjects of eco-innovation;
- 2) scientific and technical policy (a complex of the actions directed to maintenance and development of scientific and technical and intellectual potentials, fundamental science, transfer of scientific achievements to all spheres of public economy);
- 3) direct financing of enterprises engaged in innovative projects in the field of new technologies;
- 4) tax benefits of eco-innovation;
- 5) preferential crediting and increase in availability of credit resources;
- 6) formation of infrastructure of regional innovative system and the attractive environment for investments into economy and the market of innovations at which the state acts as an agent of sale for innovation;
- 7) cooperation of university science and the enterprises making the knowledge-intensive production;
- 8) creation of system of the regional resource centres providing preparation and professional development of experts on the basis of eco-innovative technologies;
- 10) providing financial support to the organizations developing and (or) introducing eco-innovations, for this purpose money have to be provided separately in an account part of regional and local authority budgets and have strictly special-purpose character of distribution;
- 12) the creation of favorable conditions for the entry of banks and other financial institutions in the framework of the regional eco-innovation;
- 13) formation of the innovative capacity of the monitoring system in the region.

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Эко-инновациялық жобаларды қаржыландыру мен ынталандырудың қазақстандық және шетел тәжірибесі

Мақалада эко-инновациялық жобалар мен «жасыл» технологиялардың мәні қарастырылды, отандық және шетел тәжірибесінде қолданылатын эко-инновациялық жобаларды қаржыландыру көздері зерттелді. Бизнесті дамыту Еуропалық қауымдастығы қатысушы-мемлекеттерінің тұрақты «жасыл» өсуіне қолдау жасау саласындағы Халықаралық даму банкі қызметінің негізгі қырлары сипатталды. Әр түрлі институттармен эко-инновациялық жобаларды қаржыландыру мен ынталандырудың қағидалары, мақсаты мен міндеттері ашылды. Экономиканың басым салалары бойынша эко-инновациялық жобаларды қаржыландырудың әрекет етуші қайнар көздерін зерттеудің нәтижелері жүйеленіп, аталмыш механизмдерді тәжірибеде қолдану мүмкіншілігі бойынша тұжырымдар қалыптастырылған.

Кілт сөздер: инновация, жоба, технология, мемлекет, тегік, ынталандыру, «жасыл» экономика, қаржыландыру көздері.

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Казахстанский и зарубежный опыт финансирования и стимулирования эко-инновационных проектов

В статье рассматривается сущность эко-инновационных проектов и «зеленых» технологий, изучены существующие в зарубежной и отечественной практике источники финансирования эко-инновационных проектов. Описываются основные аспекты деятельности Международного банка развития в сфере содействия устойчивому «зеленому» росту государств – участников Европейская ассоциация развития бизнеса Раскрываются цели, задачи, принципы поддержки и стимулирования эко-инновационных проектов различными институтами. Систематизированы результаты изучения существующих источников финансирования эко-инновационных проектов по приоритетным сферам развития экономики и сделаны выводы о возможности практического применения данных механизмов.

Ключевые слова: инновация, проект, технология, государство, механизм, стимулирование, «зеленая» экономика, источники финансирования.

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