«GREEN» ECONOMY: SUSTAINABLE ECONOMIC DEVELOPMENT AND FINANCING INSTRUMENTS

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Annotation. Significant funding is required for the transition to a green economy, but it can only be mobilized by sound government policies and innovative financing mechanisms. However, these flows are still small compared to the total volumes and need an urgent increase for a successful transition in the near future.

The rate on the «green» economy determined the start of a new technological order, which replaced the carbon and eco-wasteful one. At the same time, the model of green economy only complements, but does not cancel, the model of sustainable development. The latter retains its value, but acquires a more long-term goal-setting.

Key words: efficiency, bonds, green finance, sustainable development, environmental projects.

Introduction. The concept of a «green economy» is getting an increasing public response. It is actively discussed by experts, politicians, non-governmental organizations. Supporters of the concept of «green economy» believe that the prevailing economic system is now imperfect. The concept of a «green economy» is getting public. It is actively discussed by experts, politicians, non-governmental organizations. Supporters of the concept of «green economy» believe that the prevailing economic system is now imperfect.

Relevance. The concept of sustainable development is a paradigm of balanced, self-sustaining development, through the interconnected achievement of environmental, social and economic goals.

Sustainable development reflects a model of social development in which the basic life needs of both current and future generations are met. With all the diversity of views, the problem of sustainable development exists in two main directions.

The first direction is the definition of the goals of social development as a whole and the identification of conditions ensuring their achievement.

According to the hierarchy of sustainable development goals, economic goals are put in a subordinate position in relation to the goals of the development of society, that is, they are considered as a means of ensuring the sustainability of development in general.

The second direction is the study of the conditions and factors that ensure the sustainability of economic development as such.
Recently, the concept of inclusive sustainable growth (inclusive sustainable investment) has become more widely known abroad. Its main provisions, including the conclusion that there is a strong relationship between economic growth and the solution of a wide range of social problems, including a more equitable distribution of income created in society, with special attention to the poorest segments of the population, were originally developed by scientists from the 1980s.[1]

The «green economy» is being explored today as a new vector, the engine of sustainable development, the main tools of which are innovative green technologies.

Definition of the value of work. To ensure the sustainable development of the world and national economies, both state support and the establishment of international cooperation in solving global problems are necessary.

So, in 2016, at the G20 summit in Hangzhou, leaders recognized the importance of a green economy and the need to increase green funding to sustain environmentally sustainable growth at the global level. «The world seeks to create a better future for people and the planet. But we cannot achieve our sustainable vision without using the global financial system, which uses its capital to stimulate transformation», said Eric Solheim, head of the UN Environment.

At the present stage, a number of experts consider green finance as a synonym for investment in environmentally sustainable development projects and the production of environmentally friendly goods and services, including investments in reducing greenhouse gas emissions and adapting to climate change.

Others interpret «green» finance as a type of financial services and products used in making decisions about loans[2], monitoring and managing risks taking into account environmental factors and contributing to the implementation of environmentally friendly investments and low-carbon technologies, projects, industries and enterprises[3].

From our point of view, it is advisable to use both narrow and broad interpretations of «green» finance. According to the first, they are understood as an aggregate of financial products and services, the development, production and use of which is focused on reducing environmental and climate development risks.

«Green» funding includes expenditures, primarily investments, from public and private sources, in the design and implementation of projects and programs in the field.

The above definitions of «green» finance use a qualitative, and, moreover, a rather vague criterion - the provision of activities to reduce environmental and climate development risks. This leaves a lot of room for subjectivism in attributing one or another type of economic activity to «green».

One of the most important priorities in this direction is the development of local markets for green bonds. The record release of green bonds in 2016 and 2017 was supported by national governments and an objective increase in market innovations in the field of ecology.

The public sector plays a leading role in creating a market for green bonds, preparing the relevant regulatory framework, conducting demonstration emissions and promptly adjusting all regulatory and standardizing norms to reflect real market situations.

**Materials and methods.** For the scientific substantiation of people's lives in harmony with nature, it is necessary to shift the understanding of the essence of economic behavior of a person from the level of «economic man» to the level of «comprehensive man», i.e. include in the analysis, along with the requirements of economic efficiency, environmental and moral relations.

This means that a civilizational approach should be used, which consists in imparting to the changes in the «man-nature» system the character of universality, i.e., when assessing the motives of people’s activities, it is necessary to proceed not so much from economic gain, but from the need for comprehensive development of the personality. The basis of the new methodological approach should be a behavioral economic theory.

The application of a civilizational approach will lead to the consideration of a «green economy» as a new socio-economic phenomenon of the XXI century, which ensures the transition of humanity to a new civilization.

Experts identify four main channels (identifying the corresponding effects), through which the formation of a green economy and the associated structural reforms can serve as engines of economic growth, embodied in the increase in GDP.

First, the transition to a green economy can increase the input resources of natural, physical, and human capital (Baietti, 2012).

Secondly, this transition should be accompanied by favorable structural changes and implies significant investments in a number of strategic sectors, including energy, construction, housing and communal services, etc.
Third, they independently identify, as an important growth factor, investment in the development of a «green» infrastructure, including a water supply and sewage system, public transport, focused on alternative sources of fuel, etc.

And finally, fourthly, the transition to a green economy stimulates innovation activity, including at the firm level, which must be supported, along with the creation of a favorable competitive environment, also by regulatory methods, including the introduction of standards and regulations.

During the transition to a green economy, particular attention is paid to the formation of modern infrastructure, which is of key importance for ensuring sustainable development, and the modernization of which is a crucial element of the structural reforms analyzed here.

Literature review. Active practical work in the field of greening economic relations, their transfer to a «green» basis requires theoretical substantiation, which has been formed over several centuries. The study of the evolution of economists’ views on the environment [4], covering the period of the seventeenth and twentieth centuries, draws attention to the fact that for a long time environmental problems did not fall into the spectrum of study, since no significant changes in the environment were observed. However, studying the basis of wealth, already in the XVII-XVIII centuries, scientists (Petty U., Quesnay F., Turgot A., Smith A.) pointed to the main role in its creation of labor, land, nature, agriculture, and the law of diminishing soil fertility.

At the turn of the XVIII-XIX centuries, on the basis of the revealed interrelation of economic processes and nature, T. Malthus formulated the idea of limited natural resources. At the same time, the ideas of the interrelation of the social-ecological aspects of welfare and society (J.S. Mill) and the theory of reproduction of social capital (K. Marx) are developing.

The end of the XIX - the first half of the XX centuries, enrich the world economic thought with the theory of externalities (A. Pigou), which allowed to take into account the influence of the rights of private ownership of environmental objects (R. Coase).

Damage to the environment should be compensated to the affected party in the form of a state subsidy based on the imposition of a tax on such activities.

There has been an active study of the problems of the relationship between the depletion of natural resources and the economy (G. Hoteling, S. Kuznets, K. Balduing, R. Solow), the beginnings of the theory of environmental decision-making under uncertainty (K. Arrow).

The study of theoretical concepts emerging in the second half of the twentieth century allowed us to single out three main areas in which solutions to environmental issues and problems are developed:
- Neoclassical school, whose representatives consider environmental problems as external effects that can be eliminated with the help of taxes, trade in permits, etc.;
- School of ecological economics, whose representatives see the problem in economic growth itself, since the economy is part of the ecosystem, and it is limited;
- The post-Keynesian school, whose supporters consider a number of problems constraining «green» growth, highlighting as the main fundamental uncertainties and a low flow of investment in «green» projects and offering a set of measures to solve them.

Results and discussion. National and subnational programs for building a green financial system encompass a range of activities from various actors - for example, governments, regulators, and public financial institutions - to create the basis for a green finance system and to engage the private sector. These national programs or roadmaps include both mandatory and voluntary activities, which, unlike direct financial interventions (solutions, products and support), also include mandatory and voluntary regulatory interventions.

Thus, the national program represents valuable examples of cooperation between the government, the public sector and the private sector, where public policy and finance play a key role in attracting and, ultimately, in the use of private finance in green investments. The examples below illustrate how a compulsory or voluntary focus on green financing between regulators is combined with various financial solutions and tools, as well as market support.

Recently, the topic of «green financing» and specifically “green bonds” is in the focus of attention both at the state level and among private issuers and investors. Their release in 2017 amounted to $ 155.5 billion, an increase of 78%, while according to forecasts of the Green Market Initiative, this year's output will be $ 250-300 billion, and by 2020 the global issue of green bonds should reach $ 1 trillion. A total of 1,500 green bond issues occurred in 2017 in the world[5].

In 2017, the renewable energy sector accounted for $ 51 billion or 33% of all revenues on green bonds issued. In second place are projects of low-carbon construction and energy efficiency, which accounted for $ 45 billion or 29%. In third and fourth place is pure transport (§ 24 billion or 15%) and water management (§ 20 billion or 13%)[6].
«Green» bonds are placed not only by banks and private companies, but also by governments, municipal and local governments. The share of the United States, China and France accounted for 56% of the total output. The US Mortgage Agency Fannie Mae topped the rating of the largest borrowers of green bonds with a cumulative issue volume (Green MBS) of $24.9 billion, as a result of which the United States took the 1st place in terms of raising funds through green bonds in 2017. In the second and third place were China and France [6]. A major event in 2017 was the release of environmental bonds by the French government: their total value amounted to a record $10.7 billion, which will be spent on investments in clean energy and projects to combat global warming. In second place are bonds of the China Development Bank (China Development Bank) with a volume of $4.6 billion. The European Investment Bank (EIB) and the New York City Passenger Transport Authority (New York MTA) placed green bond issues of $4.6 billion and $4.2 billion. Fiji became the first emerging market economy to issue public green bonds: they allowed to attract 100 million Fijian dollars, or 50 million dollars. USA, to support measures to mitigate the effects of climate change and adaptation to its change[7].

A total of 37 countries placed green bond issues in 2017, with 10 countries entering the market for the first time. Among them. Nigeria, Fiji, Malaysia, Argentina, UAE, Lithuania and Switzerland. The largest borrower in 2017 was the American mortgage agency Fannie Mae, whose cumulative issuance of mortgage «green» bonds (Green MBS) amounted to $24.9 billion.

During the reporting period, 156 issuers from 31 countries issued green bonds. For example, in June 2018 - 19 issuers from 14 countries conducted 44 emissions of green bonds[5].

According to the Climate Bonds Initiative, international financial corporations, as development institutions, still play a key role in issuing green bonds. In the first half of the year, these organizations accounted for 27% of all issues - compared to 12% in the first half of the previous year. Non-financial corporations are in second place in terms of the number of green bond issues: their share is 20% of all green bond issues of the reporting period.

For the first time, issuers from Iceland, Indonesia and Lebanon entered the green bond market. As a result, the total number of countries where green bonds were issued reached 48.

The volume of green bond issues in developing countries amounted to $20.1 billion, or 28% of the total emission of the 1st half of 2018. The share of China in the volume of all issues of the second quarter of 2018 was 80%, the share of Indonesia and South Korea - 7% each (Delivering the Green Economy through Financial Policy, 2018).

The share of sovereign green bond issues of developed and developing countries in the total volume of the issue was 13%, remaining at the level of the 1st half of 2017. In May 2018, Lithuania first attracted funds on the green bond market for the development of energy-efficient housing projects.

The volume of issue of municipal green bonds amounted to $2.1 billion, or 3%, compared with 9% for the same period in 2017. 17 issuers from 4 countries issued municipal green bonds. At the same time, 56% of the issue volume fell on green bonds issued by the Canadian Province of Ontario and the Province of Quebec. The second and third places for the issuance of municipal bonds are issuers from the USA and Sweden, which accounted for 22% and 16% of the total volume of the issue. In fourth place with a share equal to 6% of the issue volume - the city council of Auckland (Australia), which first entered the market of municipal green bonds[5].

From $34 billion to $60 billion will be required until 2030 for Kazakhstan’s transition to a green economy. Such indicators are indicated in the Concept of the Green Economy System, developed at the International Financial Center Astana in 2017.

In the long term, trading in CO2 emissions (PTS) on the AIFC Exchange is considered a priority tool.

Green finance has great potential in countries in transition. Kazakhstan is committed to reducing CO2 emissions by 15% from 1990 levels. In addition, there are internal indicators of the country to increase the volume of renewable energy in the total share of energy.

In the realities of Kazakhstan, the promotion of green initiatives requires more time due to the raw materials orientation of the economy. In the near future, the release of the first «green» bonds in Kazakhstan, which will give impetus to the creation of such a market. In turn, this will attract a greater number of investors in the republic, including «green» investors, who in principle do not invest in “brown” production.

Thus, initiatives in a green economy, such as green bonds, soft green loans in the form of long and cheap money, the use of blockchain technologies are timely and correspond to world trends. For example, the Luxembourg Stock Exchange is known for creating a separate section for green paper. The London Stock Exchange is known for the largest placement volumes of green paper, including the recent issuance of a green bond by the Commercial and Industrial Bank of China in the amount of $1.58 billion.

Conclusion. Despite the positive effect of promoting green investment as a tool for modernizing the economy on a new technological basis, there are still a number of obstacles.
First, there is the lack of a developed theory of transition from the existing model of economic development to the model of a green economy, as well as a clear definition of the green economy itself and the model of development of society based on it.

Secondly, the identification of a «green» economy with a «low-carbon» or «carbon-free» economy is a major obstacle. In order to create such an economy, countries are developing plans to reduce greenhouse gas emissions (primarily CO2), in accordance with which programs of state support for business are formed and financial instruments for this support are determined.

Thirdly, it is a widespread concern that the identification of developed countries with a «green» economy with a «carbon-free» economy, coupled with a system of global standards and certification associated with the transition to a «green» economy, will lead to «green» protectionism and restrictions markets.

Fourth, the validity of the concept of sustainable development itself and promoted within the framework of this concept of «green» economy (as «carbon-free») are being questioned already by scientists, specializing in the natural sciences, and from the philosophical direction of scientific research. Natural scientists note that these concepts are being promoted under the idea of countering anthropogenic influences that have led to global warming and climate change, which is a highly debatable issue.

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«ЗЕЛЕНАЯ» ЭКОНОМИКА: УСТОЙЧИВОЕ РАЗВИТИЕ ЭКОНОМИКИ И ИНСТРУМЕНТЫ ФИНАНСИРОВАНИЯ

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Резюме. Для перехода к зеленной экономике требуется значительное финансирование, но его можно мобилизовать только разумной государственной политикой и инновационными механизмами финансирования. Однако эти потоки все еще не везде по сравнению с общими объемами и нуждаются в срочном увеличении для успешного перехода в ближайшей перспективе.

Ставка на «зеленую» экономику определяет старт нового технологического уклада, который пришел на смену углеродному и экстрактивному. Концепция «зеленой экономики» обеспечивает комплексную увязку и гармоничное согласование между собой трех компонентов устойчивого развития – экономического, социального и экологического. При этом модель зеленой экономики только дополняет, но не отменяет модель устойчивого развития. Последняя сохраняет свое значение, однако приобретает более долгосрочное целенаправленное.

Ключевые слова: эффективность, облигации, зеленые финансы, устойчивое развитие, экологические проекты.
MODERN TRENDS, PROBLEMS AND PROSPECTS FOR THE INNOVATION OF THE AGRO-INDUSTRIAL COMPLEX OF THE REPUBLIC OF KAZAKHSTAN

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Annotation. The article considers the current state and prospects for increasing the innovatization of the agro-industrial complex, as one of the important sectors of economic development. The economic factors affecting the innovatization of the agro-industrial complex are analyzed. Based on the analysis, the author identified the main priorities and prospects for the development of the agro-industrial complex. In conclusion, the author made conclusions about the need to consolidate in the policy documents of strategic development at various levels of economic specialization of the agrarian-industrial type for regions where agriculture is a basic industry.

Key words: agro-industrial complex, agrarian sector, rural farm, competitiveness.

Introduction. Development of the agro-industrial complex in Kazakhstan is one of the main areas of economic development of the Republic. Agriculture produces about a third of national income. The socio-economic situation of the republic’s agriculture, despite the measures taken and positive trends of recent years, remains challenging. In modern conditions, with the universal recognition of the value priority of competitiveness of agricultural products, many issues of its development do not find adequate state support and regulations, therefore, the development of competitiveness of agricultural products of the country should be given even more attention [1].

The scientific novelty of the research is the development of a general theory market as a system of economic relations, the substantiation of economic mechanisms to improve the competitiveness of agricultural products, its functioning, regulation and trends.

Methodology of the research. The work methodology includes the use of tools for quantitative analysis of indicators of competitiveness of agricultural products of the Republic of Kazakhstan. The theoretical and methodological basis of the study was the works of Kazakhstan agrarian economics, government programs.

Results and discussion. Currently, the Republic of Kazakhstan needs to increase the production of competitive agricultural products. The latter is such production, which, using the achievements of scientific and technical progress, allows society to meet production and personal needs in goods, to obtain resources for both expanded reproduction and the development of the non-production sphere, and for most entrepreneurs to avoid bankruptcy and survive in a competitive way. In modern conditions, the key problem in the agro-industrial complex is to increase the level of competitiveness of agricultural products [2].

Despite the difficulties that the domestic agro-industrial complex is currently experiencing, analysts note the prospects of its development. State measures aimed at reviving its own food base and protecting the