

## METHODOLOGICAL FOUNDATIONS OF GREEN ECONOMY

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### Abstract

In this article, the authors study the emergence, history of development, and formation of the "green" economy, analyze the scientific views and conceptual studies of several economists on the "green" economy, and develop relevant conclusions and proposals for the development of the field.

### Keywords

green economy, environmental economics, sustainable growth, green growth, human capital competence, technologies, material resource markets, social institutions and public policy.

### Introduction

Currently, many countries (mainly developed countries) are choosing the direction of formation and development of a "green" economy, which is considered a guarantee of sustainable economic growth. In the 21st century, the study of "green" economy issues is of interest to many scientists in various fields and is becoming the object of their research. The need to transition to a "green" economy is inextricably linked with the problems of the ecological nature of socio-economic development, namely the problems of environmental and climate change, the problems of the social nature, namely the constant increase in the population, the growth of unemployment, and the problems of the economic nature, namely the regular occurrence of economic crises in various sectors of the economy and the reduction of the recurrence period. Under the influence of these problems, the world economy is moving towards an unstable development path, which is of concern to national countries and international organizations. To achieve the goal of sustainable economic growth, all national countries must take comprehensive measures. In this regard, the concept of transitioning to a "green" economy is one of the important tools for achieving sustainable growth.

We can see the first ideas about the formation of a "green" economy in the teachings of the physiocrats, one of the directions of classical political economy. They put forward the doctrine that "the only source of wealth is nature. Directly in nature (in agriculture) allows for an excess of income over production costs. This creates conditions for the enrichment of society." The founder of this doctrine is Francois Quesnay, the author of the "Economic Table", who believes that the economy has its own natural laws (the concept of natural regulation), and the economy develops within these laws, and it is important that the state does not interfere in this process (in the process of economic relations)[1].

However, despite the law of natural order, the periodicity of economic crises is increasing, and cyclical development is becoming more pronounced. The cyclical development of the economy was proven in the 40s of the 20th century by J.M. Keynes, who put forward the theory of increasing state intervention in eliminating economic crises. We can admit that the current crises, along with purely economic causes and consequences, are caused by the excessive economic activity of mankind, which leads to the destruction of nature, the environment, and the increase in social inequality. In this case, the formation and development of a "green" economy is the only correct solution to the problems that are accumulating before humanity.

**Purpose of the study** – is to analyze the conceptual foundations of the "green" economy. To achieve this goal, the following tasks were set: 1) to study the history of the emergence and development of the "green" economy; 2) to analyze modern scientific, fundamental scientific works on the "green" economy; 3) to reveal the essence of the economic category of the "green" economy, its relationship with the concepts of sustainable growth and "green" growth. The development of the "green" economy is one of the most important tasks for world practice, as well as for the sustainable economic growth of individual independent states.

**Research methodology.** To achieve the above goal, the theoretical methods of scientific research were widely used: analysis and synthesis, scientific abstraction, logical approach, dialectics, and the scientific literature related to this problem was studied, analyzed, and conclusions were drawn. In the process of preparing this scientific article, documents of many international organizations, foreign scientific articles, and scientific works published in our country were studied.

**Analysis and results.** The concept of a "green" economy was first used as a scientific concept by the English economist David Pearce in the 1990s in a report prepared for the British government entitled "The Green Economy Plan". D. Pearce was primarily an expert on the environment and resources, and later put forward the idea of developing a "green" economy. His research on the environment and natural resources and the knowledge he had accumulated led him to conclude that it was necessary to transition to a "green" economy. D. Pearce put forward scientific ideas about the conservation of natural resources and the disappearance of various biological and botanical worlds on the globe in his scientific treatises "Research on Environmental Economics in Great Britain" (1973) and "Environmental Economics" (1976).

However, D. Pearce presented his ideas about the "green" economy in a somewhat broader way in 1992. In his opinion, the "green" economy is characterized by the following features: firstly, the implementation of reproduction on the basis of self-sustainable development, secondly, sustainable development is a common feature of any "green" economy, and thirdly, the ability to reproduce increases somewhat with the change in the form of the economy.

It should be recognized that in the current period, foreign economic literature also contains ideas about ecological economics, which is currently in the development stage. The founders of ecological economics are American economists Robert Constance and German Daly. In their work "Ecological Economics: Science and Sustainability Management", published in 1989, they interpreted ecological economics as a science that studies the relationship between society and nature, as well as mechanisms for protecting nature and biodiversity. Along with the concept of "green" economy, the concepts of "green" growth and sustainable growth have also entered the international lexicon. Because these concepts are inextricably linked and require each other. However, first, the concept of "sustainable growth" is analyzed and its definition is given on an international scale. In 1987, the United Nations International Commission on Environment and Development (UNICEF) in its report "Our Common Future" defined the concept of "sustainable growth". According to it, "Sustainable growth is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [7]. The concept of sustainable development encompasses three components: economic, environmental, and social.

Sustainable growth requires the application of technologies based on the rational use of limited natural resources and material economy in social production. Only in this case will the balance of stability of social and cultural systems of society and the integrity of the biological system of nature be preserved.

The definition of the "Green" economy, which is currently widely used in scientific literature, was given by UNEP (United Nations Environment Programme) in 2009, which is as follows: "A "Green economy" is a system of economic activity related to the production,

distribution and consumption of goods and services that leads to an improvement in the living conditions of people in the future, without exposing future generations to risks and environmental resource depletion” [8].

The definition of “green” growth was originally given by the Economic and Social Commission for Asia and the Pacific. In the Declaration adopted by this commission in Seoul in 2005, “green” growth is recognized as a strategic direction for achieving sustainable development. The declaration defines “green” growth as follows: “Green growth is growth that ensures an environmentally sustainable economic process based on low emissions of harmful substances to the environment” [9]. It should be noted that South Korea was the first country to develop a “green” growth strategy and adopt it as a model for its national economy.

There are many definitions of the “green” economy and “green” growth in the scientific literature. These definitions contain more conceptual elements such as “economy”, “environment”, “society”, and less elements such as “economic growth”, “growth”, “natural resources”, “sustainability”, “innovation”, “technology”, “market”. At the same time, many definitions of the “green” economy are similar to the definition given by UNEP, incorporating such conceptual elements as “ecological risk”, “natural resource scarcity”, “human well-being”. Based on the analysis of the definitions of the “green” economy over the years, we can conclude that: firstly, the concepts of “green” economy and “green” growth are often used as interrelated, complementary concepts, but “green” growth is more closely related to the concepts of production and economic growth. The “green” economy is more closely related to social issues and environmental limitations. Secondly, in the 2008s, many concepts related to the “green” economy appeared, namely the concepts of “circular economy”, “bioeconomy”, “low-carbon” (harmful) economy. Thirdly, the concept of “green” economy is becoming richer and more multifaceted with the passage of time and the publication of scientific developments on the problem, and fourthly, the diversity of definitions given to the “green” economy is increasing.

All definitions given in the scientific literature describe a model of the “green” economy, in which the primary goal is to improve the quality of life of the population through “green” growth. At the same time, the definitions and descriptions given emphasize the significant positive role of innovative “green” technologies in the formation of a green economy. In other scientific studies, namely in studies on sectors and areas, one can find such concepts as “green finance”, “green procurement”, “green jobs”, “green products” and many other similar ones. This indicates that the conceptual core of the “green” economy is becoming more and more evident.

With the increase in scientific views, research, and various actions on the “green” economy, it is important that more attention is paid to problems such as environmental, climate change, depletion of natural resources, land erosion and desertification in the economic policies of countries. Because this situation creates an opportunity to ensure sustainable economic growth of the country and the nation. In our opinion, the Gross National Product, which is the result of national economic production, is considered more as an indicator of the quality of life of the population, and does not take into account environmental protection, living conditions of people, etc. It should also be recognized that in the present era, the quality of life of people is determined not only by the level of material well-being, but also by factors such as the natural social environment, a healthy lifestyle, environmentally friendly food products, and clean nature. Therefore, in achieving economic growth in a “green” economy, the main goal is to use natural resources economically and rationally and to increase human well-being.

The state should use all its political levers and mechanisms to improve the environmental situation and form and develop a "green" economy. The main attention should be paid to the formation of a legal and regulatory framework, improving trade, targeting fiscal measures, encouraging the introduction of "green" technologies, developing national and international standards for measuring hydrocarbon emissions, involving international organizations in solving

environmental problems, increasing state procurement of "green" goods, etc. At the same time, it is also important to widely apply policies that encourage small and private business entities that produce "green" goods and services.

The main goal of a modern market economy is economic growth, but increasing well-being due to excessive use of natural resources causes more harm to the environment. In addition, economic growth, as a result, ultimately leads to a decrease in the quality of life, a decrease in social communication between people, the breakdown of social cohesion, and an increase in crime. Therefore, in the current era, in comparison with "pure" economic growth, the need to achieve "green" growth through the application of "green" technologies to the economy, the use of renewable resources, waste reduction, and rational use of natural resources is increasing.

In our opinion, in the conditions of a traditional economy, the sustainable economic growth model operates in a state where nature, society, and the economy are separated from each other. However, their mutual harmony ensures stability. According to the "green" economy paradigm, human capital (i.e. society) is a subsystem. Society, in turn, is a subsystem of nature. It is known that all natural resources (land, forests, water, subsoil resources) cannot be increased or expanded. Therefore, nature has a certain potential and limit. In this case, the economy must also be recognized and acted upon.

Both the economy and society are inextricably linked with the environment. Therefore, in order to achieve sustainability, society must change the quality of economic growth, that is, it is advisable to reduce the use of non-renewable natural resources, use renewable ecological resources more efficiently, as well as use resource-saving technologies in the production and processing of goods. That is why, at present, in many developed market economies, new technologies such as "zero-waste production", "chain production", "circular economy" are widely used. This situation will ultimately lead to the implementation of a "green" industrial revolution and the widespread development of "green" business and entrepreneurship.

The concept of a green economy is currently of great importance in society. Various international and local environmental societies play a major role in its widespread implementation. Such societies conduct research on the "green" economy, develop various models, approaches, assessment methods, and provide financial support for environmental projects.

We can see the place and role of the "green" economy on the example of the sustainable development of the European Union. The sustainable development model of the European Union countries assesses the importance of "green" economy factors. For this, the "quintuple helix" model was used. This model is based on factors such as quality management, effective development, restoration of natural balance, and preservation of biodiversity. This model explains how knowledge, innovation, and the environment are inextricably linked. The model is based on a model that integrates a number of systems, namely the education system (human capital), the economic system (economic capital), the political system (political and legal capital) and the environment (natural capital), and has developed indicators of the transition to a "green" economy in the European Union countries.

The analysis of scientific research on the "green" economy, according to most scholars, is mainly based on the analysis of six factors. These factors include the following: human capital competence, technologies, material resource markets, social institutions and public policy. Using these factors, it is possible to explain the main driving force and obstacles to "green" growth. First, "green" growth requires competence, since competence allows making the right decisions in complex, non-standard situations, both in the private sector and in the public sector. Second, technological processes must be directed towards "green" technologies, and it is also necessary to abandon temporary technologies that bring short-term benefits. Third, for people to achieve "green" growth, knowledge opportunities should be based on an assessment of modern markets,

disruptions in the structural structures of the economy and transformation systems. Fourth, it is necessary to pay attention to the geography of “green” growth at different scales. Countries with high incomes will switch to “green” technologies faster. The main obstacle to “green” growth can be the lack of universities and centers that are drivers of innovation. Understanding and knowing consumer behavior is also an important factor in developing a “green” economy. Tax regulation is also a tool that stimulates a green economy. Countries that are geographically well-located and have sufficient natural resources will transition to a “green” economy more slowly than countries with limited resources.

According to the concept of a “green” economy, the limitation and depletion of natural resources is a significant environmental problem. However, it should be recognized that, according to the theory of the "green" economy, the limitation of resources and the interconnectedness of nature are important economic and social axioms. The establishment and development of the "green" economy will lead to the adaptation of national countries to changes in prices and the rational use of natural resources. This, in turn, is an important factor in sustainable growth.

The reason for the rapid depletion of natural resources is the technogenic development of economic development. This type of development, in turn, causes negative economic and environmental consequences. As is known, there are three types of natural resources: finite and non-renewable, finite and renewable, non-renewable and inexhaustible. Based on the division of resources into such types, many scientists, in particular Russian scientists, propose four criteria for sustainable development. The first is to support a certain level of use of renewable natural resources; The second is to reduce the level of use of non-renewable natural resources and replace them in the future with renewable resources; the third is to minimize waste through the widespread use of low-emission and resource-saving technologies; and the fourth is to control environmental pollution. These criteria make it urgent to form a new paradigm for the development of a "green" economy.

Currently, in our opinion, there are four different approaches to the issue of the "green" economy, namely, the eco-zonation of the general economy, the formation and development of sectoral "green" industries, the creation of new technologies that ensure technologically and ecologically clean industry and food production, and positive changes in civilizational values and culture of society, a change in the consciousness of people.

In the transition to a "green" economy, in addition to the rational use of natural resources, it is desirable to widely introduce innovations. Without innovations, there is no "green" growth. If we look at the analysis of the productivity growth index in developing market economies, they differ sharply in terms of innovations and "green" technologies. It is possible to distinguish three types of productivity processes in countries: the catching-up effect, the innovation effect, and the technical and technological leadership. If we analyze the state of the productivity process in the countries of the world, then the effects of catching up in Latin American countries and the effects of technical and technological leadership in European countries are characteristic. Since the situation in the field of "green" technologies and innovations is different in different countries, it is advisable to develop their own approaches to managing this process. For example, in American countries, in order to expand and be effective, "green" production, state policies that reduce environmental pollution and effectively support the use of energy and natural resources in production play an important role. Asian countries, on the other hand, should pay attention to the issue of "green" consumption (consumption culture), that is, to encourage consumers to sustainable production and waste recycling. European countries, on the other hand, should further develop "green" innovations.

In supporting “green” innovations, the main attention should be paid to political instruments, directing private and public investments, revitalizing legal and regulatory legislation, and implementing “green” standard policies in the field of industrial production.

There are various differences in the concept of sustainable economic growth. From a methodological point of view, although sustainable development encompasses economic growth, there is also a point of view that the “green” economy and economic growth are not always inextricably linked. In this regard, there are currently three approaches: radical transformism, cooperative reformism, and statistical progressivism. Radical transformism explains the idea of ecological sustainability and economic growth as incompatible, while cooperative reformism, on the contrary, explains the idea of ecological sustainability and economic growth as compatible. The idea of statistical progressivism is an idea between the ideas of radical transformism and cooperative reformism. It aims to create a society based on a welfare economy that supports the idea of global economic growth [2].

In order to achieve sustainable economic growth, in 2015, the UN member states adopted the “2030 Agenda for Sustainable Development”. The Agenda consists of 17 sustainable development goals. The “green” economy is inextricably linked to the goals of sustainable economic growth. This can be seen in the commonality of the criteria for classifying the “green” economy and the goals of sustainable economic growth.

More than 10 criteria have been developed for studies on the concept of a “green” economy. These criteria cover three areas, namely environmental, social and economic problems. Sustainable development in the ecological direction, which includes criteria aimed at improving environmental problems and environmental quality, covers the changes inherent in the “green” economy, namely changes in the quality of life of the population and living standards (education, medicine, social infrastructure, income, inflation rate). Effective components of sustainable economic growth in the social sphere are peace, justice, strong institutions, social justice. Sustainable development in the economic direction, on the other hand, includes the following purely economic elements, namely sustainable economic growth, poverty reduction, food security and sustainable agriculture, ensuring a healthy lifestyle.

Turning to indicators that reflect the development of the “green” economy, most researchers have concluded that gross domestic product cannot be a general indicator that reflects the state of the “green” economy, because, in their opinion, social and environmental factors are not taken into account in the gross domestic product created [3,14].

That is why various methodologies are currently being proposed to represent the transition to a “green” economy. The most widely used indicator among them is the global index of the “green” economy. This index is calculated on the basis of four indicators, namely the efficiency of the energy and climate change sectors; markets and investments; and environmental changes, and assesses the state of the “green” economy of national countries.

The experience of developing a “green” economy in countries around the world shows that in order to implement this process, a number of interrelated measures must be taken. These are the following:

- development of environmental legislation at the global and national levels and their widespread use in the efficient use of water, air, land resources and waste;
- certification of natural, organic products and goods;
- development and implementation of ecological innovations;
- mitigation of the consequences of environmental changes and the use of legislative and economic instruments;
- implementing measures to increase energy efficiency in cities and implementing “smart” city and rural projects;
- creating “green” jobs and attracting investments for them.

**Conclusion and suggestions.** Based on the analysis of conceptual studies on the "green" economy and international, domestic legal, regulatory and socio-economic documents, we can make the following conclusions and proposals.

1. The "green" economy is a system of socially inclusive relations that reflects the interests of the state, community and private individuals, aimed at preventing environmental pollution, increasing the efficiency of existing resources, preserving ecology and biodiversity.

2. The concept of the "green" economy is a concept that arose with the emergence of negative changes in the environment and is closely related not only to environmental problems, but also to the well-being of human society.

3. The transition to a "green" economy requires cooperation between the state, various community organizations, business entities and individuals, as well as between states.

4. The introduction of biotechnology into the production process, which ensures the economical use of renewable and non-renewable natural resources, plays an important role in the formation and development of a "green" economy.

5. The formation of the population's thinking, knowledge and worldview on the "green" economy and an integrated approach to the rational use of nature are the key to the effectiveness of the "green" economy.

6. Scientific discussions on the "green" economy and the balance of economic growth will lead to the creation of optimal solutions to public interests and environmental issues.

7. Sustainable development of the world's countries can be achieved in the context of a "green" economy using a "green" growth strategy. In this case, it is necessary to pay attention to the use of indicators such as the global index of the "green" economy and the ecological result (ecological impact) as the main indicator of the effective functioning of the "green" economy, rather than gross domestic product. In general, scientific research on the sustainable development of the "green" economy and green growth is becoming increasingly relevant today, and they are supplemented by new approaches and methodologies.

## Reference

1. Pearce D., Markandya A., Barbier E.B. Blueprint for a Green Economy. – London. Earthscan, 1989, 191-192 p.
2. Pearce D. Green Economics // Environmental Values 1. 1992. - №1. P. 3-13.
3. Costanza R. Ecological economics: the science and management of sustainability. New York: Columbia University Press. 1991. – 525 p.
4. Kasztelan A. Greengrowth, green economy and sustainable development: terminological and relational discourse. // Prague Economic Papers. – 2017. №26 (4) – P. 487-499.
5. Черешнев В.А., Никулина Н.Л., Боярский А.И. Эволюция исследованной от устойчивого развития к «зелёной» экономике. Вестник ЗабГУ. – 2014. - №8. с. 133-143.
6. Резолюция, принятая Генеральной Ассамблеей 27 июля 2012 года 66/288. Будущее которого мы хотим [Электронный ресурс]. URL: <https://www.unisdr.org/files/rezolutions>.
7. Селишева Т.А., «Зеленая» экономике как модель устойчивого развития стран ЕАЭС. // Евразийская экоэкономическая перспектива: проблемы и решения. 2018. - №3. с. 6-12.
8. The club of Rome, The Limits to Growth, URL: <https://clubofrome.org/publication/the-limits-to-growth>.
9. Pearce D., Markandya A., Barbier E.B. Blueprint for a Green Economy. – London: Earthscan, 1989. – 192 p.



10. Иванова Н.И., Левренко Л.В. «Зелёная» экономика: сущность проинципы и перспективы. // Вестник Оценкого Университети, серия «Экономика». - 2017. - №2. с. 19-28.
11. Ямалова Н.Н., Рубан Д.А. Особая значимость экономического фактора для устойчивого развития национальной экономике концептуальной анализ. // Стратегия развития экономики. 2014 - №:14. – с. 20-30.
12. Вукович Н.А. «Зелёная» экономика: определение и современная эколога-экономическая модель // Вестник УрФУ. Серия экономика и управление – 2018. -Т. 17. №1. – с. 128-145.
13. Scott-Cato M. Green Economics: An introduction to Theory. Policy and Practice, London: Earthscan, 2009. – 240 p.
14. Ядгарова Я.С. История экономических учений: учебник. – М.: ИНФРА – М. 2009. – 480 с.