



ВИСШЕ УЧИЛИЩЕ ПО АГРОБИЗНЕС И РАЗВИТИЕ НА РЕГИОНИТЕ

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ABSTRACT

of a dissertation

for awarding the educational and scientific degree "DOCTOR"

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In professional direction 3.8 ECONOMICS

on the subject:

**FINANCIAL ASPECTS OF THE GREEN ECONOMY
AND ITS ROLE FOR SUSTAINABLE DEVELOPMENT:
TRENDS, DYNAMICS, INTERACTION**

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Vladimir Arsovski is a doctoral student in the free form of study in the doctoral program "Finance and Banking" with the teaching unit of the "Economics and Finances" department of UARD-Plovdiv.

The dissertation work was discussed and scheduled for defense by the departmental council of the department of "Economics and Finance" at the Faculty of Economics and Management of the UARD at a meeting held on

The public defense will take place on at hours, according to the order of the Rector of the UARD No.

The materials for the defense are available to those interested in the Academic Department, "Doctoral Students" sector, office No. 3 of the UARD - Plovdiv.

I. GENERAL CHARACTERISTICS OF THE DISSERTATION

The relevance of the dissertation research is due to the need for further development of the theoretical foundations of the formation of a green economy in the context of the sustainable development of the world economy and individual countries.

The working hypothesis of the study is the identification of opportunities to increase economic efficiency and to optimize economic growth rates using the tools of the green economy. The notion is defended that the instability of the modern market economy system does not allow effective realization of the main advantages of the green economy, and an alternative can only be a system built on the basis of a balance between the market economy and the regulated economy.

As part of the implementation of this research hypothesis, the following tasks are set:

1. Review and evaluation of the definitions presented by various authors, international forums and institutions of the green economy model.

2. Analysis and assessment of the concepts of sustainable development with a view to its positioning in the perspectives of environmentally friendly economic relations. Identification of the problems created by sustainable development, related to environmental protection, achieving a higher degree of resource efficiency, limiting poverty and social inequality.

3. Highlighting the financial aspects of the manifestation of the characteristics of the green economy, the role of financial instruments for the transition from a traditional to a "green" economy

4. The problems of establishing the green economy in the Republic of Macedonia and conducting an empirical study on the attitudes of the population regarding the importance of transitioning to a green economy and the financial capabilities of local authorities.

In view of the thus defined object, subject, thesis aim and tasks, limitations of the study have been adopted. The dissertation analyzes three groups of financial aspects of the green economy - the financial instruments for stimulating investments in the green economy, the problem of green jobs and the role of the green economy for economic growth from the point of view of maintaining sustainable development of the economy. Issues such as the risks to financial stability associated with climate change have been neglected.

Accordingly, the object of research is the green economy and its possibilities for guaranteeing sustainable economic development.

The subject of the study are the financial aspects characterizing the opportunities of the green economy to achieve ecologically sustainable development

The theoretical and methodological basis of the study is determined by the views of the currents of thought in economic science, which study the processes of evolution and development of environmental economics, ecological economics and the economics of sustainable development. The materials of the United Nations, UNIDO, the World Bank and other organizations, which to one degree or another regulate various aspects of the ecological economy in the context of sustainable development, are widely used.

Academic methods of scientific research are used in the work: analysis and synthesis, surveying, bibliographic methods, statistical observations, etc.

The information base of the study is determined by statistical publications and materials of the World Bank, the United Nations, UNIDO, the European Union, Eurostat, etc. Materials

from periodicals were used in the work; collections of abstracts of scientific and practical conferences and collective monographs on the problems of environmental economics, green economy, sustainable development, low-carbon economy, etc.

Research methodology. The specificity of the researched problem requires the use of the complex, systemic and process approach, which allow the activities and processes of managing the transition from the traditional to the green economy to be considered in their mutual relationship and interaction between them in the socio-economic and natural environment. The system of specific research methods used covers:

- Office research and interpretation of scientific literature and other sources of scientific information - documents, statistical publications, encyclopedias, manuals in the field of the studied problems;

- Critical analysis of the results of scientific research and development and publications of world and Bulgarian scientists, experts and specialists in the field of classical economics, sustainable development and the circular economy;

- Conducting and processing the results of a questionnaire field study on the attitudes of the local community in four border municipalities in the Republic of Macedonia, on the transition to a green economy and its financial aspects.

II. SCOPE AND STRUCTURE OF THE DISSERTATION

The dissertation consists of four chapters, introduction, conclusion and bibliographic reference of the used literature. The total volume of the dissertation covers 238 pages, there are 13 tables, 17 figures. The content is structured according to the set research thesis and tasks and is consistent with the object and subject of research.

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III. SYNTHESIZED CONTENTS OF THE DISSERTATION

INTRODUCTION

The introduction of the development justifies its relevance and significance and presents the conceptual framework of the study - object, subject, research thesis, goal, tasks, methodological tools and limitations. The degree of development of the problem posed in the dissertation in the world scientific literature, as well as by Bulgarian authors, is indicated.

First chapter. Green and economic issues in the context of world economic development contains three paragraphs.

In the **first paragraph**, "The discussion on the "green economy" - theoretical concepts and influencing factors", the genesis of the concept of "green economy" is traced. A critical review is made of the more important definitions given by famous scientists and international institutions such as UNEP, UNCTAD, the International Chamber of Commerce, the UN Commission on Sustainable Development, the European Bank for Development and Reconstruction, etc. The green economy became an officially recognized branch of the economy in the 1970s as a result of a number of environmental problems. The green economy is a practical approach to solving environmental problems from an individualistic perspective at the local level. The green economy implies respect for the environment, which comes from citizens at the local and regional level.

The following author's definition of the essence of the green economy was derived: the "green" economy covers such economic processes that affect the production, distribution, exchange and consumption of goods and services, so that the general well-being of people in the long term grows without expose future generations to serious significant environmental risks.

The **second paragraph** "The advantages of the green economy" examines the green economy from the point of view of one of the directions in economic science, within which it is believed that the economy is a dependent component of the natural environment in which it

exists and is a part of it; aims to preserve the well-being of society through the efficient use of natural resources, as well as the return of end products to the production cycle. The theory of the "green" economy is based on three axioms:

- impossibility of endless expansion of the sphere of influence in the limited space;
- inability to satisfy the endlessly growing needs in the conditions of scarce resources;
- interdependence between the components of the green economy.

The transition to a green economy will require a concerted effort by world leaders, civil society and leading companies. It will take sustained efforts by politicians and their constituents to rethink and redefine traditional measures of wealth, prosperity and well-being. The world has developed in such a way that the main burden of responsibility for the conservation of the remaining biodiversity is borne by the economically developed countries. It is natural that it is precisely in these countries that various projects are launched, forums are held, programs are drawn up aimed at stabilizing and improving the state of the environment. Most of these projects and programs were created in the energy sector. It is significant that the average cost of environmental protection in the EU in 2016 amounted to 0.7% of GDP, reaching €316 billion in 2017. Waste management represents the largest share of costs (on average 0.4 %), while biodiversity costs are declining. In the EU, the country with the largest share of expenditure is Greece (1.6% of GDP).¹

The **third paragraph**, "The Economy and the Environment," presents the relationship between the economy and the environment.

The traditional concept gives only a quantitative characteristic, conveying the constant problem of the ratio of income (the receipt of resources) and consumption (the use of resources). The modern concept of economy should be based on qualitative characteristics, i.e. taking it not simply as wealth (resources), but wealth that restores (reproduces) the economy, i.e. we are talking about the development of the individual, society and the natural environment, which forms the prerequisites for the emergence of the concept of "ecological (green) economy", directly related to nature (the environment). On this basis, it is argued that there are four types of services provided by the environment to the economy, namely²:

- provision of resources. Nature provides resources (renewable and non-renewable) used in economic production to meet human needs;
- place for burial and processing of waste from consumption and production. The extracted resources must be equal to the waste that is returned to nature - this is necessary to resume the cycle;
- convenience of life. The environment makes it possible to satisfy needs that are not directly related to the maintenance of life, but make life more comfortable, such as sunbathing, swimming in the ocean and sea, recreation in the wild, etc.;
- life support. For humans, compared to other species, the wider range of conditions that the environment can provide is revealed.

¹ Cfr: EU. Eurostat. https://ec.europa.eu/eurostat/statistics-e-plained/index.php/Government_expenditure_on_environmental_protection#Expenditure_on_.27environmental_protection.27 (seen on 3.01. 2021).

² Common, M. and Stagl, S. (2005). Ecological Economics. An Introduction. Cambridge: Cambridge University Press, p. 88.

In the Paris Agreement in December 2015, countries agreed to "adapt to the adverse effects of climate change, increase climate resilience and reduce greenhouse gas emissions in a way that does not threaten food production" and "make the financial flows in line with greenhouse gas emissions and climate-resilient development", with initial financial support of US\$100 billion per year from industrialized countries.

Conclusions on the first chapter

1. After tracing the genesis of the concept of "green economy" and a detailed overview of the definitions given in the theory and documents of international institutions about the essence of the green economy, the definition is derived that the "green" economy covers such economic processes that affect production, distribution, the exchange and consumption of goods and services so that the general well-being of people in the long term grows without exposing future generations to serious significant environmental risks. Three important components are included in this definition:

- a) green economy is a system of economic activities;
- b) the green economy contributes to increasing people's well-being;
- c) the green economy largely protects people from environmental risk.

2. The advantages of the green economy over the traditional economy and the main directions of its development are outlined. It is argued that the transition to a green economy will require a concerted effort by world leaders, civil society and leading companies. It will take sustained efforts by politicians and their constituents to rethink and redefine traditional measures of wealth, prosperity and well-being.

3. The relationship between the green economy and the environment is analyzed. The conclusion that the protection of the environment requires the application of the principles of the green economy is substantiated.

CHAPTER TWO. SUSTAINABLE DEVELOPMENT AND GREEN ECONOMY – TRENDS AND DYNAMICS

The **first paragraph** «The concept of sustainable development and green economy in the documents of international organizations» analyzes the concept of sustainable development. Sustainable development is formed by three components: economic, social and environmental. Very accurately, in our opinion, P. Penchev adds that "To these elements, the institutionalization of power must also be added."³

³ Пенчев, П и Р.Пенчева (2017) УСТОЙЧИВОТО РАЗВИТИЕ – ТЕОРЕТИЧНИ И ПРАКТИЧЕСКИ ИЗМЕРЕНИЯ. Годишник на СА „Д.Ап.Ценов“Свищов, т.СХХ, стр.71 Penchev,P. I R.Pencheva(2017) Ustoychivoto razvitie-teoretichni I prakticheski izmereniya. Yearbook of D.Tsenov Academy, Svishtov,v.CXX.p.71

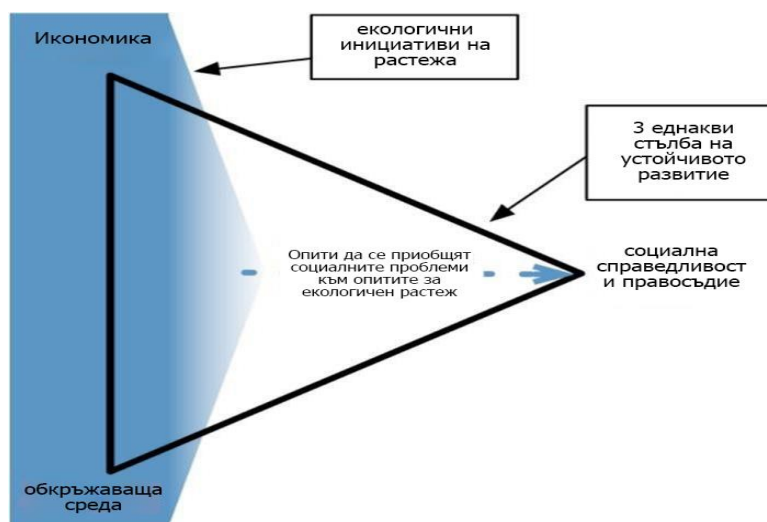


Fig 1 Components of sustainable development

The economic component is based on the premise that the main idea of sustainability is the following - current decisions "should not compromise the prospects for maintaining and improving future living standards. This means that our economies must be managed so that we can live off the dividends of our resources."⁴

The social component⁵ consists in the understanding that sustainable development is directly related to improving the living standards of the poor, which can be measured through indicators of food security, real income growth, education, health, water supply and sanitation and other, indirectly related with economic growth as a whole.

The environmental component included pollution as one of the main topics of discussion after the publication in 1962 of Rachel Carson's book, *Silent Spring*, which aimed to send a warning about the dangers of pesticides.

The green economy and sustainable development are interconnected. The green economy can be likened to a tool for sustainable development. In UNCSD's understanding, any green economy concept must be the basis for sustainable development.

The **second paragraph**, "Green economy and sustainable development: interaction or opposition" analyzes the two theories of the origin of sustainable development economics. One argues that the sustainable economy emerged as a result of a major research program called Research for Sustainable Development (ISD), which includes Economics for Sustainable Development, created by the German Federal Ministry of Education and Research. The main program is the implementation of the German National Strategy for Sustainable Development and the high-tech strategy of the federal government. This initiative can be traced back to 2003, when the aforementioned ministry noted that neoclassical economics was obsolete following the work of Manstätten and Faber, Zederbaum and Ayres, R.U.

⁴ Repetto, R. C. (1986). *World enough and time: Successful strategies for resource management*. Yale University Press. New Haven, Connecticut.

⁵ Barbier, E.B. (1987) The concept of sustainable economic development. *Environmental Conservation* 14(02), pp.101- 110.

The other theory⁶ explores the origins of sustainability economics in two classic twentieth-century papers already mentioned above: Boulding's "spaceship economics" and Dalí's "sustainable state economics."

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The second paragraph, "Green economy and sustainable development: interaction or opposition" analyzes the two theories of the origin of sustainable development economics.

The idea of a green economy has always been inextricably linked to sustainable development and it is impossible to separate these two terms. We can say that the green economy is a process and sustainable development is a challenge.

As the Danish group⁷ points out, the green economy must contribute to sustainable development. In addition, scientists understand the "green economy" as a mechanism that prevents systemic distortions and violations of an unstable economic paradigm.

Sustainable development has a broader spectrum, provided that the green economy is one of the "core ingredients" of sustainable development. Sustainability cannot be understood without social well-being and respect for biodiversity, but it is also impossible to achieve them without appropriate economic mechanisms. Thus, we can say that every issue related to green economy is also related to sustainable development, but not every issue related to sustainable development is necessarily part of green economy.

After a critical review of the definitions of sustainable economic growth, two conclusions are drawn:

- 1) Sustainable development is not understood only as a rational use of natural resources.
- 2) The social component of sustainable development is a key principle of sustainable development.

The **third paragraph** "The social component of the green economy: a social green economy" analyzes the third pillar of sustainability - the social. It is not sufficiently researched, although the social aspect has been included in the agenda of a number of conferences as a factor in eradicating poverty.

Based on the review of the concepts of sustainable development, we offer the following definition: sustainable development is such a way of managing natural resources in which the well-being of people today does not lead to limiting the degree of satisfaction of the needs of future generations. The goal of sustainable development is the management of available resources in such a way that they fully satisfy the needs of modern society.

The merit of the proposed definition is that it develops the concept of green economy as a key element of environmental sustainability research.

Conclusions on the second chapter

⁶ Bergh, J.C.J.M. van den (2010) Externality or sustainability economics? *Ecological Economics*, 69(11), 2047-2052.

⁷ Martins, N. (2011) Sustainability economics, ontology and the capability approach. *Ecological Economics*, 72, 1-4. p. 4

1. The concepts of sustainable development are analyzed. The author's definition of the concept of "sustainable development" is given, namely "Sustainable development is such a way of managing natural resources in which the well-being of people today does not lead to limiting the degree of satisfaction of the needs of future generations. The goal of sustainable development is the management of available resources in such a way that they fully satisfy the needs of modern society." In this definition, emphasis is placed on the concept of green economy as a key element of environmental sustainability research.

2. A critical review of the two most popular theories on the origin of the economics of sustainable development has been made. The general conclusion is that the green economy and sustainable development do not oppose each other, but complement each other and pursue the common goal of improving the ecological environment and people's well-being.

3. The green economy describes two areas of sustainable development: the environment and the (green) economy. The third pillar of sustainability is social. The social component of the green economy is explained as an important third pillar of the green economy. The third paragraph "The social component of the green economy: a social green economy" analyzes the third pillar of sustainability - the social. It is not sufficiently researched, although the social aspect has been included in the agenda of a number of conferences as a factor in eradicating poverty.

CHAPTER THREE. ECONOMIC AND FINANCIAL ASPECTS OF THE GREEN ECONOMY IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT presents the financial instruments for realizing the principles of the green economy.

First paragraph "Financial aspects of the green economy".

The transition to a climate-neutral, climate-resilient green EU economy clearly requires significant financial investment across all sectors to tackle biodiversity loss, protect natural capital and support the circular economy, as well as human capital and social investment related to the transition. To this end, the EU has developed a sophisticated system of financial support for the Green Deal through private (InvestEU) and public (public sector credit line to the European Investment Bank (EIB) group) investments; Just Transition Mechanism (JTM); revising the EU emissions trading system and effectively pricing carbon emissions, removing sectoral regulatory barriers to investment in energy efficiency and renewable energy.

The main documents in this section are:

Investment plan "Sustainable Europe",

European Recovery Plan,

Action plan of the European Commission for financing sustainable growth (in the process of being reformed into a strategy),

Taxonomy of EU Sustainable Actions,

EU Green Bond Standard,

Guidelines for using the Green Bond standard.

The InvestEU programme.

Soft loans for the public sector to implement measures that contribute to the transition to climate neutrality (energy and transport infrastructure, district heating networks, energy efficiency measures, including renovation of buildings, social infrastructure, etc.). Ensuring sustainable investments through a state support system for the Just Transition Mechanism (JTM):

decarbonization of companies; financing energy efficiency, phasing out coal (in particular lignite) and closing coal-fired plants; circular economy.

The main indicators that the EU plans to achieve:

- 1 trillion euros of private and public sustainable investments over the next ten years;
- additional investments of 260 billion euros per year until 2030;
- 150 billion euros for the period 2021-2027 in the most affected regions to mitigate the socio-economic consequences of the transition;
- 108 billion euros for climate and environment programs in 2021-2027 from the Cohesion Fund and the European Regional Development Fund;
- EUR 650 billion over 7 years for state guarantees for partial coverage of risks and attraction of private financing through InvestEU;
- The EIB will increase the share of its financing aimed at climate change and environmental sustainability to 50% by 2025;
- 20% of the revenues from the EU Emissions Trading Scheme (ETS) auctions will be allocated to the EU budget as own resources for the Green Deal.

Development and strengthening of public-private partnerships and co-financing of the Green Deal through targeted use of own local financial resources. Cities can also adopt stricter rules and standards (eg, raising energy efficiency standards for new buildings and renovating existing buildings) to drive private capital toward targeted green investments.

The first sub-paragraph of the first paragraph of the third chapter "The Green Economy and Economic Growth" analyzes the relationship between the green economy and economic growth in the world.

The green economy is directly related to various concepts of growth, most notably green growth, which was first introduced in 2005 at the Fifth Asia-Pacific Ministerial Conference on Environment and Development (ICED) in Seoul. The Ministerial Declaration and the Regional Implementation Plan for Sustainable Development were also adopted there. Green growth is a strategy to sustain economic growth and create jobs to alleviate poverty as part of natural resource deprivation and climate change. To ensure the effective implementation of the Common Green Deal⁸, the European Green Deal Investment Plan has been developed (Sustainable Europe Investment Plan European Green Deal Investment Plan) aimed at mobilizing EU funding and creating an enabling framework to encourage and stimulate the attraction of public and private investment necessary for the transition to a climate-neutral, green, competitive and an inclusive economy.

The plan envisages the following main changes in the financing system:

- Increasing volumes and expanding funding sources. The implementation of the European Green Deal in 2021-2027 will attract at least €1 trillion of public and private investment, including funds from the EU budget (€503 billion)⁹ and national structural funds

⁸ Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0021&from=E>

⁹ Available at: https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_24

of around €114 billion for climate-related projects and the environment, as well as €279 billion of private and public investment that will come through InvestEU. Great attention will be paid to targeted support for the most vulnerable regions, workers and sectors. It will be provided through the Just Transition Mechanism, under which in 2021-2027 at least 100 billion euros will be invested with funds allocated from the EU budget and member states, as well as contributions from InvestEU and the European Investment Bank. The European Investment Bank is also expected to expand green project financing by increasing the share of "climate-oriented" projects in the budget by 2025 from the current 25% to 50%. In addition, funds will be attracted from the Innovation Fund and the Modernization Fund (about 25 billion euros), which are not included in the EU budget, but are formed, among other things, at the expense of a part of environmental taxes, trade revenues with greenhouse gas emissions, etc.

- Creating favorable conditions for private and public sustainable investments by introducing the principles of sustainable financing into the financial system, including by developing tools for their evaluation, as well as by stimulating green budgeting and green public procurement, introducing mechanisms for obtaining state aid for the transition to a green economy.

- Methodical and practical support of government bodies, interested companies in planning, development and implementation of sustainable projects, primarily in terms of assessment of financial needs and planning of subsequent investments. The development of sustainable financing will be facilitated by the introduction of an additional risk monitoring method in the investment attractiveness assessment system, based on the principles of ESG (Environment, Social Responsibility, Management)¹⁰, which allows for a comprehensive analysis of the company's impact on the environment, the integrity of employee and customer relations and the effectiveness of corporate governance. Further promotion of this method is possible under the condition of transparency, i.e. disclosure of ESG risks (environmental, social and governance) in proposed projects.

- An important document within the ELC is the Taxonomic Regulation¹¹, whose main provision is the creation of a "green list", i.e. system for classifying sustainable economic activities. The regulation foresees the development of technical standards, according to which it will be possible to determine whether the economic activity is sustainable in terms of environmental impact.

- In addition, the regulation provides for the creation of a Sustainable Financing Platform, an advisory body consisting of 57 experts and designed to assist the European Commission in developing criteria for the sustainability of a certain economic activity (technical screening criteria), as well as developing recommendations for further development of the tax

¹⁰ ESG (Environmental, Social, Governance) a set of company conduct standards used by socially conscious investors to screen potential investments. Environmental criteria look at how a company protects the environment, including corporate policies addressing climate change. Social criteria examine how the company manages relationships with employees, suppliers, customers and the communities in which it operates. Corporate governance deals with company management, executive pay, audits, internal controls and shareholder rights.

¹¹ Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1112

The OECD uses the term "green growth" rather than "green economy". The following table includes the definitions of green growth and green economy, which clearly show the difference between them. Green growth aims to deliver progress through environmentally sustainable inclusive development. The green economy seeks to improve people's well-being as a result of reducing environmental risks and improving energy and resource efficiency. onomy and sustainable finance in general.

Table 1. UNEP concepts of “green growth” and “green economy”

Definition of Green Growth	Definition of Green Economy
"Economic progress that promotes environmentally sustainable, low-carbon and socially inclusive development"	"Which leads to improved human well-being and social equity, while significantly reducing environmental risks and ecological deficits ... that ensures low carbon dioxide emissions, is effective resource-rich and socially inclusive ... one whose income and employment growth is driven by public and private investors who reduce carbon emissions and pollution, improve energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services."

Source: *UNEP*

Economic growth does not necessarily bring prosperity, as the gap between rich and poor widens, markets face great volatility, and natural resources are overexploited. This is confirmed by figures presented in recent OECD reports. In the OECD countries, the average Gini - the disposable income of households in Bulgaria in 2020, reached 8,647 euros¹².

Bulgaria has the highest ratio between the top and bottom income quintiles in the EU. This means that the inequality in disposable annual income between the 20 percent with the highest and lowest incomes in the country is the largest among the six countries examined (fig2).

¹² Available at: <https://www.24chasa.bg/mneniya/article/12029407> (seen on 9.08.2022)

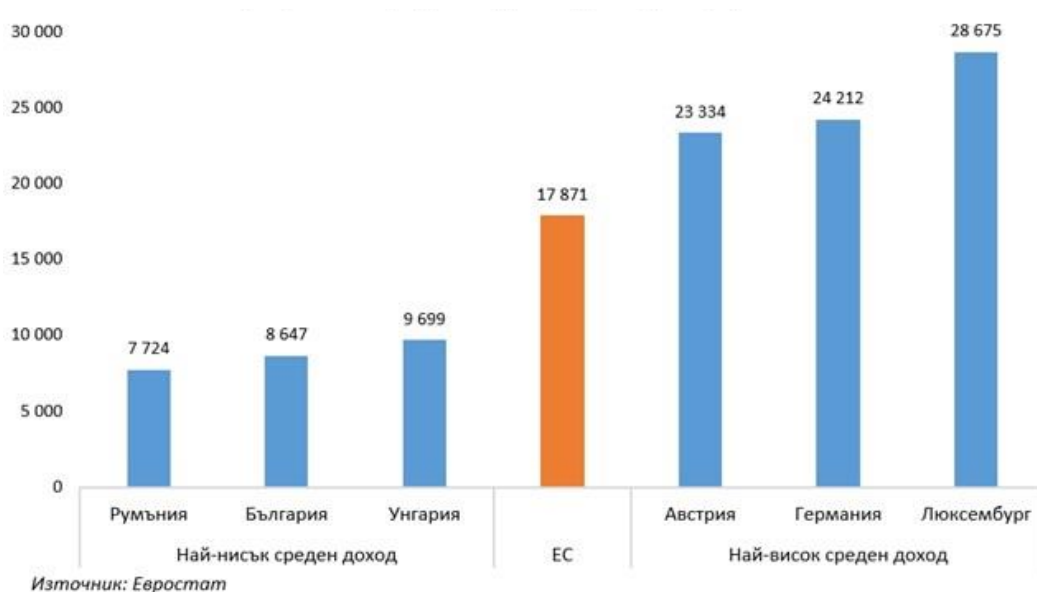


Fig.1 Average annual income in euros for 2020

The ratio in Slovakia is 5 points lower than that in Bulgaria and is almost 1.9 points lower than the European average. Bulgaria also has a higher ratio than the other two countries in its group – Romania and Latvia.

The second subparagraph of paragraph one 'Green jobs' Green jobs' examines the role of emerging occupations and new jobs in place of old traditional industries as a result of the transition to a green economy.

Since the emergence of the green economy, the International Labor Organization, working with other IGOs and NGOs, has brought green jobs to the fore in the form of a new economic paradigm. The International Labor Organization (ILO) considers green jobs as the main weapon of the green economy, as green jobs affect at least half of the world's population. Quite appropriately, Hristina Harizanova draws attention to the fact that "Green workplaces are largely different from traditional professions."¹³ The clarification made by the same author is very important, namely that the "Greening" of professions in EC is understood as the degree to which green economic activities and technology increase the demand for existing occupations, or the generation of a unique product by workers. By using this definition, three categories of occupations are identified that are subject to the green economy:

- Green emerging professions;
- Improving the skills of workers employed in the green economy;
- Employers moving to green activities¹⁴

Positive results of the green economy's impact on job creation can be summarized as follows:

¹³ Harizanova, Hr. sastoyanie I razvitie na zelenite работни места v EU. Upravlenie I ustoychivo razvitiir 1/2015950) p.13

¹⁴ Ibid

1) Renewable energy and low-carbon sectors generate more jobs per unit of energy than the fossil fuel-based sector;

2) Among the common Renewable Portfolio Standard (RPS) technologies, solar photovoltaics (PV) create the most jobs per unit of electricity produced;

3) Energy efficiency and renewable energy sources can contribute to lower CO₂ emissions and job creation. Halving the annual growth rate of electricity production and shifting 30% to renewables in 2030, each of these areas would generate about 2 million jobs by 2030 (in the US);

4) A combination of renewable energy, EE (energy efficiency) and low-carbon approaches such as nuclear power and carbon capture and storage (CCS) could generate more than 4 million jobs by 2030 (in the US) with more than 50% energy from sources that do not contain fossil fuels.

Green jobs play a special role in achieving the Sustainable Development Goals as they reach minorities, women, youth and the poor. We can agree, this is controversial, since "unemployment mostly affects the poor, minorities, and the disadvantaged, and the lucrative, attractive jobs (which arise in the environmental field) will largely be filled by people who are neither poor nor minorities"¹⁵. That is why Rio + 20 requires that minorities receive adequate education and training so that they can become part of the green workforce. "The transition to a green economy is likely to lead to major changes in the nature of jobs"¹⁶.

According to Rio + 20¹⁷, we can define the following conditions for green jobs:

1) Workers will have the necessary skills acquired through education or training;

2) Employees will have the necessary social protection, such as pension for long service or accident insurance;

3) Workers will have access to medical care;

4) Women and men must have equal access to opportunities to acquire work skills;

5) Workers will enjoy basic rights at the workplace.

It is quite possible, as often happened in the 20th century, to face a paradox presented by Joseph Schumpeter¹⁸: the idea of "creative destruction"; when, in the process of industrial mutation, new technologies replace obsolete ones, old jobs disappear and new ones appear jobs - green jobs.

The third subparagraph of the first paragraph, "Financial instruments of the green economy", analyzes the financial instruments with the help of which the transition from a traditional to a green economy is achieved.

The foreseen long-term EU budget, including the European Development Fund, amounts to €1,074.3 billion for the EU-27 at 2018 prices. These budget funds, together with the Next Generation EU75 recovery instrument, amount to 750 billion euros, will allow the EU to provide an unprecedented funding of 1.8 trillion euros over the next 7 years to support member states in their recovery from the pandemic caused by the COVID-19 pandemic and to provide

¹⁵ Bezdek, R.H. (1995) The net impact of environmental protection on jobs and the economy. In: Environmental Justice, B. Bryant (ed.), 86–106. DC: Island Press. Washington.

¹⁶ A/CONF.216/16, p. 47

¹⁷ Rio+20, p. 62.

¹⁸ Schumpeter, J.A. (1994) [1942] *Capitalism, Socialism and Democracy*. London: Routledge. pp. 82–83. ISBN 978-0-415-10762-4.

of the EU's long-term priorities in various areas of the Union's policy, incl. and the transition to a circular economy¹⁹.

The Just Transition Mechanism is a key instrument to ensure targeted support for the mobilization of at least €100 billion for the period 2021-2027 in the most affected regions to mitigate the socio-economic consequences of the transition. With a total budget of €17.5 billion, the **Just Transition Fund** is the first pillar of the mechanism. It provides tailored support to alleviate the social and economic costs of the environmental transition for fossil fuel-dependent regions and high-emitting industries. It supports investments in:

- SMEs and new enterprises;
- scientific research and innovation;
- technologies for clean energy and emission reduction;
- retraining of workers and assistance in job search.

The funds are intended for financing projects of an ecological nature (with an ecological component) - green investments.

First of all, the interest is not in the current costs of environmental activities, but in long-term investments in the relevant area, i.e. investments. Some scientists understand "green investments" as aimed at protecting biological diversity and environmentally friendly projects: "Socially responsible investments, green investments - these are primarily investment activities aimed at companies or projects oriented to the protection of natural resources, the production and discovery of alternative energy sources, the implementation of projects related to clean air and water and/or other environmentally friendly business practices"²⁰. We should not confuse green investments with targeted social investments, because the latter "aim to create specific favorable social or environmental factors in addition to financial gain"²¹. A number of academics and regulatory documents consider green investments as "investments in environmentally friendly and resource-saving technologies. Usually, they mean investments in various programs and projects, the purpose of which is the development of a green economy"²².

Second, green investment is not a charity, but a business. The transition from a traditional economy to a green economy is financially burdensome, but at the same time it is designed to be profitable. An example would be the market commodification (ie, the conversion of goods, services, ideas, and people into commodities or objects of trade) of pollution sinks, such as the US Program to Reduce the Harmful Impacts on Ecosystems, Natural Resources, and Populations of Acid rains (eg sulfur dioxide and nitrogen oxides trading) or the EU CO2 Emissions Trading Scheme. Businesses are based on a certain level of trading in polluters for which they have to pay fines. Thus, smaller companies can sell their pollution quota to larger companies. But this business strategy can only work in the short term and is unlikely to work in the long term, as the big companies will continue to produce cheaper and more polluting products - and be more competitive.

¹⁹ The long-term EU budget and the recovery package 17.12.2020 European Council and Council of the EU available at: <https://www.consilium.europa.eu/bg/policies/the-eu-budget/long-term-eu-budget-2021-2027/>

²⁰ Meyer, T. (2017) Green Investing. Investopedia. Available online at: <http://www.investopedia.com/terms/g/green-investing.asp>. Retrieved on 24 July 2017.

²¹ Dragonette, L. (2017) Impact Investing. Investopedia. Available at: <http://www.investopedia.com/terms/i/impact-investing.asp>. (seen on 24 юли 2021).

²² For example Zhelyazkova, V.

Banks play a key role in green investments, as they are involved in financing projects, issuing shares, loans, leases, mortgages, etc. In this regard, although there is a high efficiency in solving social problems, all this may lead to low profitability, reducing the influence of investors, but also has four advantages²³.

First, it's a fast-growing market. As predicted by the Global Impact Investment Network (GISN)²⁴ and JP Morgan there was a 20% increase in total sustainable investment between 2015 and 2016.

Second, most governments must continually reduce budget spending so that social services can benefit companies. Ganbat K. and others fail to mention that the outsourcing of social services should be driven not only by cost savings but also by higher standards of creativity and service quality.

Third, the principle of "paying for social results" in the country's social policy is replaced by the principle of "paying for services". This approach reduces the "risk of impact on investors due to their diversification".

Fourth, some social investments, such as microfinance, "provide good financial returns at the average market level", while the social impact is very positive.

The role of central banks can be sought in two directions:

- To manage and contain risks to financial stability arising from climate change;
- To stimulate the active role of the financial system in the process of transition to a green economy.

At least two arguments can be made about whether central banks have a mandate to engage with the green economy:

1) Some central banks have a mandate to support government policies, which sometimes contain objectives related to sustainable development

2) Central banks are primarily tasked with maintaining price stability and ensuring financial stability. Climate risks can have a serious impact on price and financial stability.

Therefore, even without an explicit or implicit mandate, central banks should increasingly engage in studying and managing the risks associated with climate change

Central banks must meet the following conditions to be truly supportive of green finance:

- Degree of commitment to scientific research dedicated to climate risks and popularization of research results among the financial sector and society;
- Participation and leading role in international initiatives, hosting conferences, conducting and publishing scientific research;
- Monetary policy that takes climate change into account;

²³ Ganbat, K., Popova, I., Potravnyy, I. (2016) Impact Investment of Project Financing: Opportunity for Banks to Participate in Supporting Green Economy. *Baltic Journal of Real Estate Economics and Construction Management*, 4 (1). Available online at: doi:10.1515/bjreecm-2016-0006.

Global Energy Assessment (2012) *Towards a Sustainable Future*. Cambridge University Press. Cambridge, NYC. Laxenburg Austria, International Institute for applied Systems Analysis. (Retrieved on 26 July 2017).

²⁴ Global Energy Assessment (2012) *Towards a Sustainable Future*. Cambridge University Press. Cambridge, NYC. Laxenburg Austria, International Institute for applied Systems Analysis. (Retrieved on 26 July 2017).

- Decarbonization of asset purchase programs, decarbonization of international currency reserves, collateral policy aligned with environmental goals, targeting of refinancing programs, reserve requirements;

- Financial policy

- Requirements are disclosure of climate information by financial companies; stress tests, capital instruments, etc.

- Other initiatives

- The central bank discloses information about its own climate risks, its own green portfolio of assets, training, development of taxonomies and standards, etc.

In this direction, the following initiatives for coordinating the efforts of central banks play an important role:

1) Network for Greening the Financial System (NGFS): 95 members and 15 observers, established in 2017.

- Objective: to support climate risk management for financial stability and increase the role of the financial sector in the transition to a green economy (tools: research and creation and enforcement of good practices)

2) G20 Sustainable Finance Working Group, established in 2016.

- Goal: coordinate international efforts to mobilize sustainable finance

3) FSB Task Force on Climate-related Financial Disclosures (2015)

- Purpose: to prepare a set of recommendations for voluntary disclosure of information by companies to be used by investors, creditors and insurers in decision-making (the recommendations were published in 2017)

The European Central Bank's role in stimulating the financing of the green economy is expressed in:

- In 2020 and 2021, the ECB reviewed its monetary policy strategy and this review incorporated climate issues

On 8 July 2021, the ECB published an action plan and roadmap as part of its monetary policy strategy. Priority areas:

- Development of new macroeconomic models

- Development of new experimental metrics

- Introducing mandatory private sector disclosure requirements regarding assets that may be accepted as collateral or form part of an asset purchase program

- Climate stress tests of the ECB's balance sheet

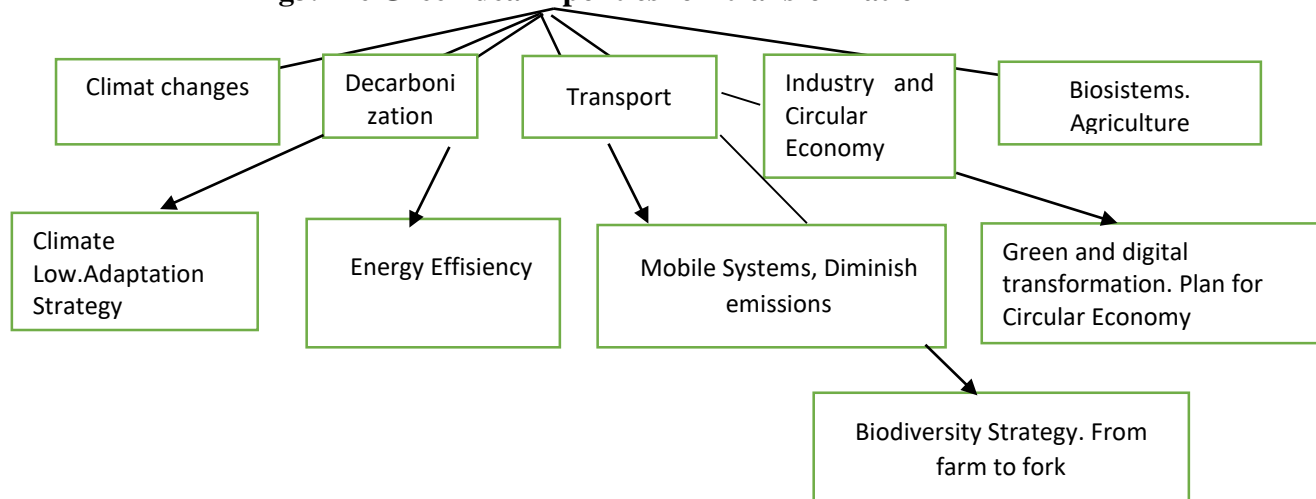
- Overview of the ECB's collateral policy

- Adapting the Corporate Sector Purchase Program to climate goals

- At the beginning of 2021, a Climate Change Center was established at the ECB.

A new stage in the efforts to "green the economy" is the so-called "green deal". It is based on 10 pillars that focus on the overall economy, requiring above all a deep transformation of energy, industry, transport and agriculture. The purpose of tracking both aspects is to enable respondents to assess the financial center independently of the size of its market. The additional data generated by this approach.

Fig3. The Green deal – politics for transformation



Source: *Communication from the EC. European Green Deal Investment Plan, 2020*

An important role in the spread of the "green" program in the economy is played by the British think tank Z/Yen Group. It analyzes international financial centers and compiles the Global Green Finance Index (Global Green Finance Index). Analysts assess the effectiveness of green finance in international financial centers by surveying practitioners in two areas:

- 1) The degree of penetration of green finance in the business of the financial center, i.e. predominance of "green" financial services and products in the considered financial center.
- 2) The quality of the green financing products and services offered.

The Catalytic Finance Initiative - (The Catalytic Finance Initiative CFI) is a partnership of asset management banks, supranational agencies and funds aimed at increasing the financing of high-return projects around the world, with the aim of obtaining additional financing in the amount of 10 billion US dollars by 2022.²⁵

CFI uses the most common instrument of the green economy – green bonds. Green bonds are characterized by the following general characteristics:

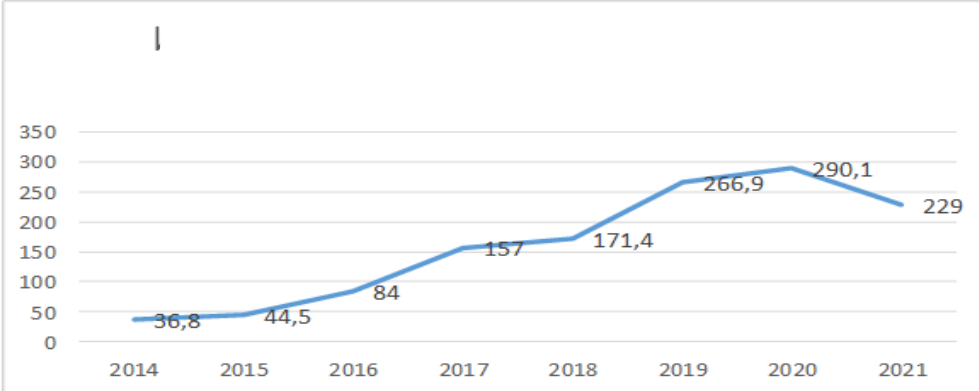
- type of climate bonds, a debt instrument for financing projects aimed at generating benefits for the environment, including by reducing the impacts of climate change;
- a commitment that the funds will be used for financing green projects, assets and business activities;
- an innovative instrument that provides new opportunities for accumulating private capital to finance green projects;
- standards (criteria and principles) - justified certified labeling scheme for green bonds (International Capital Management Association (ICMA), climate initiative (EU), Climate Bond Taxonomy²⁶;
- structured as asset-backed securities linked to certain green infrastructure projects, but currently most often issued to raise capital allocated to a portfolio of green projects.

²⁵ United Nations Official Site, достапно: URL: <https://unfccc.int/climate-action/>

²⁶ United Nations Official Site, достапно: URL: [URL: Available](https://unfccc.int/climate-action/) at: <https://unfccc.int/climate-action/> / United Nations Official Site, достапно: URL: <https://unfccc.int/climate-action/>

The green bond market was born in 2007-2008. The World Bank, in cooperation with the Swedish bank SEB, issues the first green bond issue.

The European Investment Bank issues bonds to tackle climate change. Issue worth EUR 600 million, with a maturity of 5 years. The value of the emissions reached EUR 93 billion in 2018. Bonds for over EUR 18 billion were issued, and the proceeds are for financing the renewable energy and energy efficiency project 160 projects.



Source: https://ec.europa.eu/commission/presscorner/detail/bg/ip_21_4565

Fig.4 Green Bonds issued 2014-2021

Other categories in CFI (Corporate Finance Institute) are:

Charitable foundations as a catalyst for the first loss. One key example is a \$20 million fund. bottom to support the Global Alliance and other investments affecting the achievement of the goals in the field of sustainable development. An example of this is the bonds of "IFC Forestry", issued in the amount of 152 million. USD, the world's first forestry bonds.

Development banks have historically been strong in the economy, but not in the green economy. This term covers local, national, regional or multilateral financial institutions that provide long-term capital to productive sectors and infrastructure, often accompanied by technical and managerial assistance. In the past, some have had a clear environmental agenda and have been criticized for supporting investments such as dams and coal-fired power plants that har In the past decade, some of the development banks have acted in the interest of a green economy. Data from Bloomberg New Energy Finance (BNEF) confirms that state-owned development banks are the single largest providers of financing for green assets. In the renewable energy sector alone, they provide more than 15 percent of total asset financing, and four of them are in the top ten renewable energy investors.

According to preliminary estimates of the Environmental Finance Bond Database, in 2021 the total issue of debt reached a record high - about 960 billion. bottom This figure includes bonds related to environmental and social obligations and represents a total increase of 61% in one year.²⁷

Fiscal instruments for climate change mitigation and adaptation are among the EU's highest priorities. Prices of products and services should include payments for negative externalities. EU policies such as the Europe 2020 strategy call for a shift in taxation from labor to environmental taxes for the diffusion of green technologies.

²⁷S&P Global: «Key trends that will drive the ESG agenda in 2022», Jan,22 – URL: <https://www.spglobal.com/esg/insights>

In 2019, **environmental taxes** (ENT) represented only 5.8% as a % of total taxes and social security contributions (SSC), labor taxes - from 19.4% (2007) to 20.7% for the EU-27 . In the Member States, the share of ENT in the total volume of taxes varies from 4.9% (France) to 10.9% (Bulgaria).m the environment.

The introduction of an environmental tax in the EU can be traced back to 1990. The Norwegian oil sector has been subject to a carbon dioxide (CO₂) tax since 1991 - CO₂ emissions per unit of production have fallen by around 22% over a 10-year period. The Netherlands relies on a series of voluntary energy efficiency agreements - energy efficiency has improved by around 35%. In Germany - an environmental tax can actually reduce the level of uncertainty about future profits; CO₂ taxes are reduced on new vehicle registrations. In Finland, environmental taxes outperform other policy instruments on innovation and R&D subsidies have a limited impact on innovation. Energy taxation and subsidies had little impact on innovation in the pulp and paper industry differentiation of Swedish fairways and port charges based on SO₂ and nitrogen oxides (NO_x) emissions is an important factor driving the installation of NO_x reduction equipment in engines in the ferries. Research and development subsidies have accelerated the development of technologies to reduce emissions from marine engines.

Bulgaria reports a high level of environmental tax collection compared to the EU average. This is especially true in the energy sector, while taxation on pollution, resources and transport is quite low.

Table No. 2. Environmental taxes and fees in Bulgaria

	2018	2019	2020
Total (BGN)	3223.33	3723.35	3636.06
Taxes and transport charges	2820.21	3308.47	3211.59
Energy taxes and fees	340.66	353.03	372.50
Taxes and pollution charges	8.36	7.82	3.20
Taxes and charges for the use of resources	54.10	54.03	48.77

Source: Available at <https://www.nsi.bg/bg/content/> (viewed on 23.12.2022)

At Rio + 20, the principle of sustainable investment was the same in every area of the green economy, from research and technology to agriculture and education. Governments were urged to create an enabling environment to facilitate public and private investment, as this approach is in line with the Declaration of the International Summit on Sustainable Development (ICSD, Johannesburg, 2002), which recognizes that the costs of sustainability are too high to be considered only for the public sector.

The costs incurred by country are given in the following table:

Table No. 3. Costs for green investments by country

№	state	amount	№	state	amount
1.	USA	212 bill. dollars	5.	Netherlandя	52.1 bill. dollars
2.	China	127 bill. dollars	6.	Sweden	40.2 bill. dollars
3.	France	115.6 bill. dollars	7.	Canada	25.9 bill. dollars
4.	Germany	78.3 bill. dollars	8.	Japan	24.2 bill. dollars.

Source: UNCTAD according to Bloomberg data

The study²⁸ of the impact of pricing policies on carbon emissions in US manufacturing is interesting, with four proposed scenarios that show how adaptation to low-carbon systems can be cumbersome at first, but with positive results in the medium to long term:

- 1) In very short terms, when companies cannot adjust prices - profits fall accordingly;
- 2) In the short term, firms may raise prices to reflect higher energy costs, but with a corresponding reduction in product sales or import substitution;
- 3) In the medium term, in addition to changes in product prices, the mix of resources may also change, but the capital remains valid and the effects of the entire economy are taken into account;
- 4) In the long run, capital can be reallocated and replaced with more energy efficient technologies.

The COVID-19 pandemic and the subsequent corona crisis have helped to define new development goals for the world: tackling environmental and climate problems, developing green and digital economies and financing innovative projects of the future are the priorities. As an example, we can take changes in the direction of the budget of the European Union - the new budget until 2027 foresees a significant restructuring of their expenses. The main task is the modernization of the European Union and the development of the economy. after COVID-19. The priority is not only to finance projects aimed at increasing investments in the field of scientific research and digital transformation, but also to increase the budget intended for the development of the "green" economy.

In the fourth subparagraph of the first paragraph, "Indicators for measuring the green economy", the focus is mainly on the indicator GGEI is the Global Green Economy Index, introduced in 2010. The GGEI is published by Dual Citizen LLC, a private American consulting company, and is supported by revenue, generated by data subscriptions, partnerships and other consulting offerings, often focused on building custom measurement systems for clients. In 2018, according to the GGEI indicator - a global green economy index among 130 countries in four dimensions: leadership and climate change, efficiency sectors, markets and investments and the environment, Sweden is the leader, Switzerland is in second place and Iceland - on third place.

²⁸ Ho, M.S., Morgenstern, R.D., Shih, J.S. (2008) *Impact of carbon price policies on US industry. Resources for the Future*. Paper November 2008. Достъпно на <https://core.ac.uk/download/pdf/9308156.pdf>

Table 4. The GGEI indicator – Global Green Economy Index 2018²⁹

№	State	Ratio
1	Sweden	0,7608
2	Switzerland	0,7594
3	Island	0,7129
4	Norway	0,7031
5	Finland	0,6997

Paragraph two of chapter three presents the arguments FOR and AGAINST the green economy.

FOR A GREEN ECONOMY:

1. One of the main reasons for lies in the explanation of the factors that influence the behavior of enterprises towards the environment. Despite the tendency of business entities to ignore environmental costs (in order to reduce production costs and remain competitive), the trend of increasing the number of consumers who prefer green consumption, namely the purchase of products that meet high standards of environmental protection environment. As a result, the production and sale of green products are becoming more and more profitable in the domestic and international markets. Market efficiency is enhanced by pull factors (the market demands such products) and push factors (created by the Environmental Protection Act, setting higher environmental quality standards that guide producers in the production of green products). Thus, companies become proactive in managing environmental issues and begin to take advantage of the commercial opportunities arising from increasing environmental standards.

2. The increase in the number of consumers who prefer green consumption, i.e. the use of products meeting high standards of environmental protection leads to profitable sales of green products in the local and international markets.

3. The adoption of legal provisions in the legal system of the countries conditions the adaptation of the production process and more responsible management of natural resources.

4. The green economy is becoming a way of thinking and a pattern of behavior and is increasingly changing the attitudes, especially of the generations of young entrepreneurs, thereby positively influencing business models.

5. Green entrepreneurship employs an increasing number of people, improves their quality of life and thus contributes to poverty reduction. At the same time, it opens up new spaces for action and creates new businesses. In this way, it becomes socially and economically influential and contributes to the improvement of generally accepted standards of work.

6. The development of renewable energy sources attracts more and more investors and funds and opens the possibility to develop new technologies that will provide cheaper and cleaner energy.

²⁹ Global Green Economy Index Global Green Economy Index. Достъпно на URL: https://dualcitizeninc.com/global-green-economyindex/index.php#interior_section_link. (видяно на: 3.06.2022).

7. Green economy models are becoming more and more diverse, such as green banking, green investments, creation of local currencies, etc.

AGAINST GREEN ECONOMY:

1. The green economy emerged in response to the global economic crisis of 2008 as a possible solution to the financial, social and environmental consequences of liberal capitalism. This only obscures the real structural problems of an economy in which a small number of people (corporations and interest groups) manage human resources, ignore the interests of the impoverished majority, and are not responsible for the consequences of their actions.

2. The concept of a green economy only justifies and mitigates the irresponsible management of resources that remain under the control of large corporations. The ETC Group in its research declares that the emphasis on the corporate approach only promotes the already wealthy, thereby further widening the gap in access to resources.

3. Green economy and green growth in their complexity are not sufficiently focused and do not offer solutions to the growing challenges of climate change, but often give false hope and illusion of solutions.

4. It is a new economic paradigm that seeks to maintain world order through empty promises of decoupling economic growth from environmental degradation. It is clear that the Green Economy does not aim at radical changes in the current way of production and use of natural resources, but seeks to modernize them in more ecological ways.

5. The green economy does not question the contradictions of liberal capitalism, which creates increasing social and environmental costs, further degradation of natural resources and a hegemonic style of governance. The real transformation of the system of production and consumption is possible only by changing the system of ownership and management, greater participation of the local community and the introduction of models of collective management.

Despite the controversy, the green economy has many benefits and is becoming an accepted development concept of the 21st century.

Paragraph four of chapter three "The current decisions on the concept of "green economy" in the EU"

With the Europe 2020 strategy, the European Commission set the direction of the European Union and emphasized smart, sustainable and inclusive growth. The overall development program is largely based on the principles of sustainable development, i.e. the green economy is expected to create jobs and reduce poverty through sustainable and responsible management of natural resources. Some of the set goals are:

- Reducing greenhouse gas emissions by at least 20% compared to 1990 levels.
- Increasing the percentage of renewable energy in final energy consumption by 20%.
- Increase energy efficiency by 20%.
- Increase the employment rate so that 75% of people aged 20 to 64 have a job.
- Reducing the number of people living at the poverty line by at least 20 million.

"The green economy brings with it new growth and new employment opportunities. Ecodesign, environmental innovation, preventing waste generation and promoting the reuse of raw materials can contribute to savings of around €600 billion for EU companies. Additional measures to increase the productivity of the resources used by 30% by 2030 could increase

GDP by 1%, creating 2 million additional jobs. The green economy is also ecological and reduces greenhouse gas emissions, which in turn cause a greenhouse effect in Europe."³⁰

Although in the green economy the greatest emphasis is placed on protecting the environment and achieving a higher level of energy efficiency and sustainability, in recent years the social component has become increasingly important - above all job creation and quality improvement of life.

The green economy faces increasing demands and challenges, and support policies and programs must gradually integrate the good practices and experiences of individual Member States and monitor the effectiveness of pilot measures and policies. Of particular value is the exchange and use of a common knowledge base and new technologies that allow Member States to achieve increasing performance indicators.



Fig.5. Priority areas of the green economy - an integrative framework for policy making

Also, know-how and new technologies are the main competitive advantage of European companies, so their positions can be imposed in the increasingly demanding global green economy market.

Conclusions on the third chapter

1. The key role of financing the enterprises making the transition to a green economy is highlighted. The funds created in the EU to finance economic growth, on which the economy's ability to finance the transformation depends, are successively examined.

2. The main financial instruments are analyzed such as: bank lending by commercial banks, as well as central banks and specifically the European Central Bank. The role of green bonds as a new financial instrument for establishing the green economy is outlined. The budget policy is supported by data in view of the possibilities of fiscal measures and, above all, environmental taxes and fees for financing the green transition.

3. The arguments FOR and AGAINST the green economy are presented, which must be considered objectively when planning the activities leading to the transition from a "brown" to a "green" economy.

³⁰ European Commission

4. The main directions that the EU is following with a view to realizing the concept of a green economy are marked.

In the **fourth chapter** of the dissertation "GREEN ECONOMY AND THE TASKS FOR RSMACEDONIA" the provisions created in RSMacedonia for the development of green entrepreneurship and the tasks for SRMacedonia to solve the problems with the green economy are examined.

In paragraph one, "Green entrepreneurship" characterizes green entrepreneurship, which is directly related to the environment, nature and its overall biodiversity. The mechanism for overcoming crises is also important, as well as the mechanism for achieving development of rural, isolated and underdeveloped areas. In rural areas, green entrepreneurship is mainly implemented through ecological agriculture and production, cultivation of local varieties and breeds, rural tourism, fishing tourism, adventure and educational tourism, ecological fish and shellfish farming and other innovative business activities inspired by nature, tradition, local resources and their sustainable use. Such characteristics are:

Degrowth - a social movement to reduce economic growth and increase self-sustainability. By reducing the volume of production and consumption, a higher level of general well-being is achieved and the environment is significantly improved.

The FairShares social/green enterprise governance model was conceived by experts from the British Association for the Development of Social Enterprise - Social Enterprise International, Cliff Southcombe and Rory Ridley Duff, who is also a research professor at Sheffield Hallam University in Sheffield. The concept was soon accepted by many researchers, experts in ecosocial economics, and he showed the first results through several FairShares enterprises. Namely, it is a model of management and fair distribution of profits by involving all key actors who contribute to the achievement of the results of an enterprise.

All groups of participants participate in the management and distribution of the company's profits and thus become loyal and interested in the success and development of the company they co-own.

Some of the more successful FairShares businesses are LocoSoco from the UK and Resonate Coop from Ireland.³¹

In the **second paragraph** of the fourth chapter "Tasks for the Republic of Macedonia to solve the problems of the green economy", the key questions for the Republic of Macedonia to successfully solve the tasks posed by the green economy are set as follows:

1. How will the green economy affect the strategy, structure of modern organizations, more specifically: both private and public and civil society organizations?

2. Are the existing actors in initiating the Green Economy sufficient to create the necessary and sought-after changes that will follow?

3. How will the creation of green jobs and jobs with a higher level of participation in decision-making affect the organization in the long term (with a greater emphasis on the values and abilities of the leaders)?

4. Are there any side effects of over-reliance on technology and pursuit of quality life and what are they?

³¹ Available at: www.fairshareslab.org и FairShares Асоциацията www.fairshares.coop

5. Can existing leadership offer organizations better skills for managing workers in the green economy?

In the third paragraph of the fourth chapter "Comparative characteristics between the capacity of SMEs in the Republic of Macedonia and in the EU" for the implementation of the green economy, a comparative analysis is made between the possibilities of small and medium-sized enterprises in the Republic of Macedonia and in the EU for the development of the green economy.

A resource efficiency study was conducted in the EU, covering small and medium-sized enterprises in the EU-27 and other countries, including the Republic of North Macedonia. Small and medium-sized enterprises in the EU-27 number more than 20 million and make up 99% of economic entities in European business. This structure of business entities is characteristic of the Republic of North Macedonia, i.e. small and medium enterprises in 2017 are 99.7% of the business structure. In the EU-27 level survey, the most common resource-efficient actions taken by SMEs are minimizing waste (65%), saving energy (63%), saving materials (57%), saving of water (47%)) and recycling with reuse of materials or waste in their company (42%).

- In the EU-27, 33% of companies believe that the complexity of administrative or legal procedures are difficulties faced by companies for efficient use of resources, and in the Republic of North Macedonia this is 32% of companies.

- In the Republic of North Macedonia, most of the companies - 53%, believe that the activities undertaken for the efficient use of resources have slightly reduced production costs in the last two years, and the same opinion is shared by companies in the EU-27 (37%).

- In the EU-27, the largest percentage (55%) of companies reported that in the last two years they invested an average of 1% or less per year for more efficient resources, and in the Republic of North Macedonia 36% of companies invested on average 1 to 5% or less per year.

- In the EU-27, most companies (60%) rely on their own resources in the search for more efficient ones, and in the Republic of North Macedonia as many as 86% of companies share the same opinion.

- Grants and subsidies are considered the best form of aid to improve resource efficiency in the EU-27 by 36% of companies, and in the Republic of North Macedonia this opinion is shared by 41% of companies.

Green products and services are those with the dominant function of reducing environmental risk and minimizing pollution and resources. The majority of European SMEs (63%) do not currently offer green products or services and have no plan to do so, and in the Republic of North Macedonia this percentage is even higher, representing 76% of SMEs .

- As for the costs of environmental protection, in the EU-27, 24% of the companies report a difficulty in resource efficiency, and in the Republic of North Macedonia - 15% of the companies.

- As difficulties in resource efficiency, 22% of companies in the EU see them in the correction of environmental legislation, and in the Republic of North Macedonia this is 30% of companies.

- Regarding the updated technical requirements of the legislation, in the EU27 20% of the companies indicated difficulties in the efficiency of resources, and in the Republic of North Macedonia 11% of the companies.

- Regarding the lack of specific environmental expertise, as a difficulty that companies face when trying to establish activities for the efficient use of resources, at EU-27 level 20% of companies state it, while in the Republic of North Macedonia, it is 14 % of companies.

- Regarding the difficulties in choosing appropriate activities for resource efficiency in the company, at EU-27 level 20% of the companies stated it, and in the Republic of North Macedonia - 18% of the companies.

- As a lack of demand for effective products and services in the EU-27, 17% of companies indicate this, for the Republic of North Macedonia -18% of companies.

- Difficulties from the lack of supplies of the necessary materials, parts, products or services at the EU-27 level were indicated by 14% of the companies, and in the Republic of North Macedonia by 22% of the companies.

Paragraph 4 of the fourth chapter provides information on the public attitudes at the local level for the transformation of the economy towards "greening" based on the conducted "Empirical study of the public attitudes of municipalities in the Republic of Macedonia for the transition to a green economy"

The conducted survey empirical study aims to investigate public attitudes towards the transition from traditional to "green" economy at the municipal level.

The object of the study is the transition to a green economy of municipalities from the border regions of Macedonia with Blagoevgrad region in Bulgaria in the context of the European and national strategic framework.

The subject of the study is the applicability of the principles of the green economy at the local level. The fulfillment of the objective of the empirical study poses the following research tasks:

- To analyze the level of awareness of citizens, businesses and the administration about the European and national policies for switching to a green economic model;

- To rank the goals of the green economy in order of importance from the point of view of the attitudes of the public and the specific characteristics of municipalities from the conflict region of the Republic of Macedonia with Bulgaria;

- To assess the effects of implemented local policies supporting the transition to a "green" model of economic development;

- Outline guidelines for improving management practices and improving development at the territorial level and effective management of environmental needs at the local level.

For the needs of the dissertation research, based on an assumption about the value of the studied parameters of the general population, two working hypotheses have been formulated:

- In the investigated municipalities from the border region of the Republic of Macedonia with the Blagoevgrad region in Bulgaria, there are the necessary prerequisites, interested parties and opportunities to find funds for the creation of a comprehensive territorial policy corresponding to the principles of the green economy and the local socio-economic interests and folk-psychological features;

- The creation of a new model of the economy, that of the "green" economy" in the studied municipalities is possible by sharing European practices, regardless of local characteristics.

The monitoring units are representatives of business, civil society, the public sector, including municipal administration, education, healthcare, etc.

Method of inclusion - respondents were randomly selected. A total of 456 people were surveyed, of which: 67 business representatives, 188 citizens, 87 administrative employees, 90 NGO representatives and 24 others.

Organization and conduct of the survey - the survey was conducted in several small municipalities in the border region of Macedonia with the Blagoevgrad region in Bulgaria (Delchevo, Kochani, Shtip and Strumica) in the period December 2022 - January 2023.

The purpose of the research was explained to the respondents who expressed willingness to take part in the study, and the interviewers guaranteed their anonymity and explained the research tools.

The survey card contains a total of 15 questions, the last of which is aimed at sharing the opinion of the respondents on their understanding of the cost of the transition from a traditional to a green economy.

The questionnaire was created by the author, and is in accordance with the European principles for the green economy, as well as with the research objective set in the dissertation work.

From the conducted empirical study, it is clear that 90% of the respondents are familiar with the concept and have a positive attitude towards the green economy.

The respondents' assessment is that the ways of raising awareness about the ways of transition to the green economy are not effective enough. According to the respondents, the municipal authorities mainly focus on waste management in the context of the green economy, but find this insufficient. The respondents note the importance of the task of improving the environment, creating conditions for more active entrepreneurial activity and developing one's own business, while at the same time the economical use of natural resources is carried out.

At the end of the survey, respondents were given the opportunity to describe problems that were omitted in the survey. 40% of the respondents shared on this occasion that they have concerns about the positive effects of the application of the green economy model. According to them, the transition from a traditional to a green economy requires innovations, and these are associated with serious investments. The respondents have a clear awareness that the financial costs of the transition to a green economy are significant and express fears that if the state and local authorities do not guarantee administrative and financial support, including from EU funds, it will be impossible to cope with the transition to a green economy. economy.

Conclusions on the fourth chapter

1. The experience of the Republic of Macedonia in the field of green entrepreneurship is analyzed. The goals and ways of their implementation are outlined for realizing the transformation of the economy in the Republic of Macedonia as a green economy.

2. An empirical study of public attitudes in four municipalities bordering the Republic of Bulgaria on the effectiveness of the transition from an economy to a green economy was carried out. The population is well informed, but realizes the large financial costs on the way to the transformation of the economy and expects specific and secure financial support from the local and state authorities.

CONCLUSION

1. The definition of green economy has never been finalized because the international community has decided that the concept of "green economy" cannot be limited, this concept is broad and flexible enough to accommodate different national and local approaches. Accordingly, this approach is evidence of the lack of commitment on the part of countries to a "green economy", and inconsistency in the planning and implementation of environmental programs at the institutional and non-institutional level. Based on the institutional approach to green economy, it can be argued that the existing definitions do not reflect its objectivity and conceptual foundations. Each institution (organization, including international) pursues its own interests, on which funding depends. In our opinion, the "green economy" covers such economic processes that affect the production, distribution, exchange and consumption of goods and services, so that the general well-being of people in the long term grows without exposing future generations to serious significant environmental risks.

2. After Rio+20, the financial crisis of 2008 and the COVID19 pandemic in 2019-2021. the positive and negative poles are reversed. In a negative aspect, the economy implies production, irresponsible consumption, destruction of natural resources and threatens the survival of the planets; while the concept of "green economy" has a positive character, as it is about restoring ecosystems, new markets, social responsibility, responsible consumption and new technologies.

3. In theory, environmental threats undoubtedly create new economic and financial responsibilities. The green economy is a new economic paradigm in which every participant bears responsibility for the environment: citizens are called to be responsible consumers; companies are called upon to be responsible producers of goods and services; regions are called to be responsible territorial managers; countries are called upon to respect the limits of economic growth. Thus, the problems of the "green economy" concept actually become state issues.

4. Controversies surrounding the concept of a green economy and sustainable development range from the construction of a nuclear power plant, which on the one hand is a source of energy saving, and on the other represents a high risk for the environment and reduction of jobs. Until the priorities and boundaries are defined, it is impossible to focus on the green economy in the context of sustainable development.

5. The "green" economy is not purely economic in nature, but mixed, i.e. The green economy has three components: economic, social and environmental. Accordingly, we can classify them as economic, social "green" economy and "environmental" green economy.

6. There are a number of concepts that have a lot in common with the concept of "green economy": green growth, low-carbon development, smart growth, bio-economy, sustainable economy, etc., which hinders its understanding and creates uncertainty about what society needs

7. The study of the green economy in the context of sustainable development and poverty eradication allows us to define sustainable development in the following way: "Sustainable development is such a way of managing natural resources in which the well-being of people today does not lead to limiting the extent of meeting the needs of future generations. The goal of sustainable development is the management of available resources in such a way that they fully satisfy the needs of modern society."

8. "Green economy" is an economy that focuses on practical actions and policy measures to ensure sustainable development, which are based on the application of green finance instruments.

9. The main task in the light of the ecological economy, the task is to change the structure of production and consumption. The world is not governed by solidarity, because in 2021, 95.4 million people in the European Union, equivalent to 21.7 percent of its population, were at risk of poverty and social exclusion. 5.9 million people in the European Union (1.3 percent of the total EU population) were part of households exposed simultaneously to all three risks associated with poverty and social exclusion. In developed and emerging market economies, the consumer is constantly dissatisfied, disinterested and worried, so manufacturers create his pseudo-needs. To change this pattern, deep social and economic changes are needed, which the economy is not yet ready to provide.

10. The general frameworks of an effective green economy in the context of sustainable development are political, moral and institutional. Regarding the political aspect, «green economy» within the framework of sustainable development has not yet adapted to any economic system. The state must use all levers of public policy and various mechanisms to change the modern economy and improve the state of the environment, including legislative measures, trade incentives, fiscal measures, stimulating the use of "green" in the material sphere without harming nature)

11. The public attitudes of the population of RSMacedonia at the local level regarding the transformation of the economy towards "greening" are positive, but expectations are for strong support from the state, local authorities and European funds and programs.

12. The "green economy" can become the basis for the interests of future generations. The relevant instruments are binding (formalized in international documents) to the implementation of decisions that could have a significant impact on future generations.

IV. REFERENCE ON CONTRIBUTIONS

The scientific contributions of the dissertation lie in the comprehensive study of modern trends in the formation and spread of the green economy in the context of sustainable development and the development of approaches to increase its effectiveness.

The theoretical significance of the study is determined by the development of scientific approaches to the management of the green economy based on the principles of sustainable development. The proposed approaches are aimed at the development of economic theory and the theory of environmental economics in relation to the further development of the opportunities of the green economy in modern conditions. Among the most significant scientific results are the following:

- scientific views on world trends, factors and prerequisites for the greening of the economy have been developed, which allows to confirm the scientific position that, above all, the rational management of nature contributes to the growth of economic activity;

- as a result of the analysis, it is justified that it is precisely the lack of consensus on the term "green economy", as well as the related other components of the terminological apparatus "green theory", "green growth", "sustainable growth", etc., which does not allow for the formation of a single concept for the development of a green economy, reduces the attention of countries to this problem;

- based on the study of the elements of a green economy, it is justified that the policy based on it includes such components as sustainability of the development of the technological apparatus for production, ensuring the efficiency of energy resources; increasing the number of jobs that contribute to the quantitative and qualitative reproduction of the environment; targeted investments in the environment formed as a result of the use of green financing instruments; pricing elements of the green economy;

- based on the analysis of the genesis of the green economy, the point of view is substantiated that the instability of the modern market economy system does not allow effective realization of the main advantages of the green economy, and an alternative can only be a system built on the basis of a balance between market and a highly regulated interventionist economy;

- the conducted empirical study of public attitudes at the local level in North Macedonia regarding the transformation of the economy towards "greening" proves that public attitudes are positive, but expectations are for strong support from the state, local authorities and European funds and programs.

The practical significance of the development lies in the fact that its results can be used:

- in the preparation and improvement of a number of international documents on the green economy and sustainable development;
- in the development of new study materials for doctoral students, interns, specialists and students in higher educational institutions.

V. REFERENCE ON SCIENCE METRIC INDICATORS

for the fulfillment of the minimum national requirements in the dissertation work for awarding the educational and scientific degree "doctor" in the scientific specialty "Finance and banking" in professional direction 3.8. Economy

№	Наименование	Гр у- па	Показател	Точ- ки
1.	Проблеми на зелената икономика в контекста на икономическия растеж в света. Годишник на ВУАРР, т. IX . Академично издателство „Талант“ на ВУАРР, р.67-103 ISSN 2535-0609 (on-line)	Г	7. Studies published in non-refereed peer-reviewed journals	15
2.	Зелената икономика фактор за устойчивото социално-икономическо развитие. сп. „Ново знание“ volume X, no. 3, july - september 2021, ISSN 2367-4598 стр.42-51	Г	7. Article published in non-refereed peer-reviewed journals	10
3.	Зелената икономика в контекста на устойчивото развитие сп. „Ново знание“ volume X, no. 4, ISSN 2367-4598 с.35-56	Г	7. Article published in non-refereed peer-reviewed journals	10
4.	Концепцията за устойчивото развитие и зелената икономика. Proceedings of the International scientific and practical conference “Bulgaria of regions” Тема на конференцията 25 ноември 2021: „Предизвикателства пред устойчивото регионално развитие, породени от пандемията COVID-19 “ ВУАРР - Пловдив ISBN 978-619-203-334-7 (on-line) стр. 68-76	Г	7. Report published in non-refereed peer-reviewed journals	10
5.	Екологично ориентирана икономика и устойчивото развитие: взаимодействие или противопоставяне. Устойчиво развитие и конкурентоспособност на регионите, колективна монография , Том 4 COVID-19: Предизвикателства, рискове и възможности за устойчивото регионално развитие, АИ „Талант“ ВУАРР, Пловдив, 2021, стр.57-76 ISSN: 2603-4824	Г	7. Studies published in non-refereed peer-reviewed journals	15/8 0,15
6.	The Green Economy – Important Branch of the Economy Международна конференция „БЪЛГАРИЯ НА РЕГИОНИТЕ“, IBANES, ВУАРР, Пловдив, 12-13 март 2022, pp. , ISBN 978-619-203-259-3	Г	7. Report published in non-refereed peer-reviewed journals	10