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## **«GREEN ECONOMY» AS A CONDITION FOR SOCIO-ECONOMIC DEVELOPMENT OF SOCIETY**

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### **"ЗЕЛЕНА" ЕКОНОМІКА ЯК УМОВА СОЦІАЛЬНО-ЕКОНОМІЧНОГО РОЗВИТКУ СУСПІЛЬСТВА**

*In the modern world, we observe a significant deterioration of environment as a result of rapid population growth, which is aggravated by catastrophic consequences of human footprint, namely the inefficient use of resources and their excessive consumption. This situation requires the search for new approaches to management.*

*Therefore, the key issue is the search for a model that will balance the development of public production and the state of the environment. The new economic model should first of all take into account environmental safety while maintaining economic growth.*

*One of the ways of achieving such a balance can be the transition of mankind to the «green» economy (GE), which will allow to achieve a certain harmony of environmental and socio-economic aspects.*

*The purpose of this study is to formulate the concept of GE as a condition for the future socio-economic development of society. To achieve this goal, the task was to find out the essence of the GE, to formulate the basic principles of its functioning, to identify the economic levels and*

*characteristics of the implementation of the principles of the GE, to identify the key principles and factors that influence the transition from the «brown» to the GE, as well as the main consequences of such a transition for Ukraine.*

*As a result of the study, the authors formulate the definition of GE, which, unlike the existing ones, treats the GE as a way of managing, which combines economic growth and environmental responsibility of economic actors of all levels.*

*The key principles of functioning of the GE are specified. They include compliance with the basic principles of sustainable development; understanding the high value of natural and social capital; justice in relation to future generations; taking into account the impact on the environment and social impacts when using resources and production; resource efficiency, sustainable consumption and production.*

*The authors identify four levels of management, which should implement the above principles of the GE, namely, the level of consumers, the level of enterprises, the level of the state, and the global level. For each level, the basic conditions under which these principles can be implemented are described.*

*The authors also highlighted the internal and external factors that influence the acceleration of humanity's transition from «brown» to «green» economies. The most influential factor in the internal environment is the intensification of the fight against environmental pollution. The action of external factors is realized in the form of Ukraine's signing of international environmental agreements, the ratification of international conventions, etc.*

*The key consequences for Ukraine in the transition to a GE, which will contribute to economic growth, are described. In particular, an increase in the resource base, the inflow of investments into the systemic sectors of the economy, energy efficiency, the reduction of the country's energy dependence, the creation of green infrastructure, increased employment and lower unemployment, stimulating innovation activities.*

*У сучасному світі навколишнє середовище характеризується значним погіршенням стану в результаті швидких темпів росту населення, що в свою чергу пов'язано із катастрофічними наслідками його життєдіяльності, а саме нераціональним використанням ресурсів та надмірним їх споживанням. Така ситуація вимагає пошуку нових підходів до ведення господарства.*

*Тому ключовим питанням є пошук моделі, що забезпечить баланс між розвитком суспільного виробництва та станом навколишнього середовища. Нова господарська модель повинна в першу чергу враховувати екологічну безпеку при збереженні економічного зростання.*

*Одним із напрямків досягнення такого балансу може стати перехід людства до «зеленої» економіки, яка дасть можливість досягти певної гармонії екологічного та соціально-економічного аспектів.*

*Метою даного дослідження є формування концепції «зеленої» економіки як умови майбутнього соціально-економічного розвитку суспільства. Для реалізації даної мети були поставлені завдання уточнення суті «зеленої» економіки, формулювання основних принципів її функціонування, виділення господарських рівнів та характеристика особливостей реалізації принципів «зеленої» економіки, визначення ключових факторів, що впливають на перехід від «коричневої» до «зеленої» економіки, а також основних наслідків такого переходу для України.*

*В результаті проведеного дослідження авторами сформульоване визначення «зеленої» економіки, яке на відміну від існуючих трактує «зелену» економіку як спосіб*

господарювання, який поєднує економічне зростання та екологічну відповідальність господарюючих суб'єктів всіх рівнів.

Уточнено ключові принципи функціонування «зеленої» економіки, до яких відносяться відповідність основним принципам сталого розвитку; розуміння високої цінності природного й соціального капіталу; справедливість по відношенню до майбутніх поколінь; врахування впливу на навколишнє середовище та соціальних наслідків при використанні ресурсів та виробництві; ефективність використання ресурсів, стійке споживання і виробництво.

Авторами виділено чотири рівні господарювання, на яких повинні реалізуватись наведені вище принципи «зеленої» економіки, а саме, рівень споживачів, рівень підприємств, рівень країни, глобальний рівень. Для кожного рівня описані основні умови, за яких дані принципи можуть бути реалізовані.

Авторами також виділено внутрішні та зовнішні фактори, що впливають на прискорення переходу людства від «коричневої» до «зеленої» економіки. Найбільш впливовим фактором внутрішнього середовища є активізація боротьби із забрудненням навколишнього середовища. Дія зовнішніх факторів реалізується у вигляді підписання Україною міжнародних договорів екологічного спрямування, ратифікації міжнародних конвенцій, тощо.

Описані ключові наслідки для України при переході до «зеленої» економіки, що сприятимуть економічному зростанню. Зокрема, збільшення ресурсної бази, притік інвестицій у систему утворюючі сектори економіки, підвищення енергоефективності, зменшення енергозалежності країни, створення «зеленої» інфраструктури, збільшенню зайнятості та зниженню безробіття, стимулювання інноваційної активності.

**Keywords:** «green» economy; economic growth; principles of the functioning of the green economy; the consequences of the transition.

**Ключові слова:** «зелена економіка»; економічне зростання; принципи функціонування зеленої економіки; наслідки переходу.

**Problem statement.** In the modern world, the environment is characterized by a significant deterioration in the state as a result of the rapid growth of the population, which in turn is associated with catastrophic consequences of its life, namely, the inefficient use of resources and their excessive consumption. Accumulation of waste, atmospheric pollution causes climate change and loss of biodiversity. This situation requires the search for new approaches to the economy both at the level of individual states, and at the global level. At the forefront should be the issue of streamlining consumption, deep waste recycling and environmental preservation.

The global economic, energy and environmental crises, as a reflection of the weak sustainability of the current economic system, have become proof of the need to find an alternative economic model. The new economic model should first of all take into account environmental safety while maintaining economic growth [1].

Therefore, the key issue is the search for a model that will balance the development of social production and the state of the environment as a factor of socio-economic progress in the long-term future. One of the ways of achieving such balance can be the transition of humanity to the GE, which, in the opinion of many scholars, will allow achieving a certain harmony of the ecological and socio-economic aspects of world development [2].

**Analysis of recent research and publications.** A lot of OECD, UNEP, EU experts, both foreign and domestic, paid attention to green economy research: A.V. Yamchuk, L.A. Kurguzenkova [1], L.P. Marchuk [2], T.P. Galushkina, L.A. Musina, V.G. Potapenko [3] T.K. Kvasha, O.F. Paladchenko [7], O.Yu. Kononenko [9], Ye.V. Prushkivskaya, Yu.O. Shevchenko [8], Allen Cameron, Clouth Stuart [5] and others. However, despite a large number of contemporary publications on this subject, there is no single approach to the construct of the green economy, and its components, functioning principles, development factors, etc., is not sufficiently researched.

**Research objective.** The purpose of the article is to form the concept of a GE as a condition of socio-economic development of society. To realize this goal, the task was to clarify the essence of the GE, formulation of the basic

principles of its functioning, the allocation of economic levels and the characteristics of the implementation of the principles of the GE, the definition of key factors influencing the transition from the “brown” to the “green” economy, as well as the main consequences of such a transition for Ukraine.

**Research results.** The goal of the green economy is to ensure harmonization of human-nature coexistence; the realization of the right to satisfy the needs and equality of opportunities for the development of present and future generations; the integrity of the protection of the environment during the development of society [3].

UNEP defines the GE as such that leads to increased well-being of people and strengthening social justice with a significant reduction in environmental risks and a scarcity of environmental resources. Particular emphasis is placed on low carbon development and the efficient use of natural resources, taking into account existing social factors. [4].

According to the United Nations Department of Economic and Social Affairs (UNDESA), the GE is an economy that leads to improvements in human well-being and reduction of inequality without exposing future generations to significant environmental risks and environmental scarcity and is a positive component of the overall goal of sustainable development. [5].

The International Chamber of Commerce has given its own definition: GE is an economy where economic growth and environmental responsibility are mutually complementary, supporting progress in social development [6].

The researchers Kvasha and Paladchenko [7] define the GE as a resource-efficient, low-carbon, socially oriented and environmentally friendly economy.

Prushkivska and Shevchenko [8] give the following definition of the GE: economic relations between economic entities based on the principles of protection and preservation of the environment, the implementation of the latest energy and resource-saving technologies and contribute to the improvement of the quality of life within existing ecosystems.

We propose a general definition of a GE. In our opinion, the green economy is a mode of management that combines economic growth with the ecological responsibility of business entities of all levels, contributes to the formation of the ecological consciousness of the inhabitants of the planet in order to meet the needs of the current generation without compromising the ability of future generations to meet their own needs.

No less important for the formation of the concept of a green economy is the formulation of the basic principles of its functioning. After analyzing the results of existing studies, the authors came to the conclusion that the above definition of the green economy essentially corresponds to the principles set out in [3, p.22], but with refinements and more concretization. Thus, the main principles of the GE, in our opinion, should be:

- compliance with the basic principles of sustainable development;
- understanding the high value of natural and social capital;
- equity in relation to future generations (taking into account the needs of future generations when using resources today);
- taking into account the impact on the environment and the social consequences of using resources and production;
- resource efficiency, sustainable consumption and production.

Implementation and compliance with the key principles of the functioning of the GE should be at all levels of the economic system. The authors identified four levels of implementation of the principles of the GE: the consumers' level, the enterprises' level, the states' level and the global level.

#### *The consumers' level*

Promoting sustainable consumption requires improved understanding of consumer's behavior and attitudes. Most consumers have a positive but passive view of sustainable consumption [10].

Household consumption patterns and behavior have an impact on stocks of natural resources, environmental quality and climate change. This is expected to increase significantly in the future. In response, governments have introduced a variety of measures to encourage people to take into consideration the environmental impact of their purchases and practices. These may include environmentally related taxes, energy performance standards for homes, carbon dioxide emission labels for cars, and financial support to purchase solar panels, among others. Nevertheless, understanding and influencing household behavior remains a challenge for policy makers [11].

Behavioral biases are an important variable influencing consumption as people may not behave “rationally” when making purchasing and lifestyle decisions. Biases can stem from habits and customs, susceptibility to advertising and product promotions, brand loyalties, risk aversions, and peer pressures, among other factors. Consumption is also a way of expressing status and identity, causing consumers to be very conscious of how their purchases look to others [10].

There are three main competing, but in fact interdependent, categories of widely accepted consumer behavior drivers: — psychological factors, such as values, motivations, habits; — social factors such as norms and existing social practices; — external, such as: economic and institutional, context-related conditions (e.g. infrastructure, existing institutional and economic contexts) [12].

The main areas of consumer's level of green economy are: water use, energy use, personal transport choices, organic food consumption, waste generation and recycling [11].

The behavior of consumers and the level of demand for ecofriendly products and services are affected by:

- Lack of environmental consciousness, internal incentives.
- Lack of external possibilities and incentives.
- Knowledge, values, attitudes [13].

*The enterprises' level*

For the purpose of understanding the Green Economy, it is important to make a distinction between businesses that are “producers” of products or services that improve environmental performance (build natural capital), or whether they are “users” of such technologies and services. “Producers” develop, create and sell environmental products and services – i.e. products and services that are resource efficient and benefit the environment. “Users” seek to embody resource efficient, environmentally beneficial business practices in the way they carry out their operations. The “producers” can be referred to as “Clean Tech” businesses, and the “users” as “Green” businesses. From this perspective, sustainable/green enterprise developments are a sub-category of Green Business. Optimally, Clean Tech businesses are also Green Businesses [14]. Activities of enterprises in the GE are shown in the table 1.

**Table 1**

**Activities of enterprises in the green economy**

Category	Description	Segments
Clean Energy Sources	The production, storage and distribution of renewable or low carbon energy sources.	- Clean energy generation - Energy storage - Energy infrastructure
Energy Efficiency	Technologies and services that reduce the amount of energy consumed by different sectors of the economy.	- Creating energy efficiency - Appliances and controls - Energy management
Green Production Practices	Enterprises that produce products and services or use production practices that reduce the consumption of natural resources.	- Transportation and logistics - Manufacturing and industrial - Materials and nano-technologies - Green construction - Agriculture
Pollution Mitigation, Conservation, and Restoration	Enterprises and technologies focused on reducing pollution or conserving and restoring natural ecologies.	- Water and wastewater - Air and environment - Materials recovery and recycling
Support Services	Consulting and other services that help enterprises develop and implement green and clean technologies.	- Advocacy and policy - Green business consulting - Green finance - Research and development - Education

[14]

At the enterprise level, one of the conditions for implementing and adhering to the principles of the GE is the creation of environmental business, which represents a diversified sphere of entrepreneurial activity. Such an enterprise can provide both an ecological and a significant economic effect on a nationwide scale. The EU has created a strong market for environmental works, products and services that covers almost all strategic directions for sustainable development:

- change of unstable patterns of production and consumption (implementation of resource saving technologies and technology, environmental equipment);
- promotion of environmentally friendly production;
- promotion of efficient and safe waste management, minimizing their volume;
- improvement of the quality of the environment, reproduction of disturbed ecosystems, landscapes;
- promotion of the system of environmental assessments, environmental audit, engineering, marketing;
- insurance of environmental liability, environmental risks [15].

*The state's level*

Types of policy tools have identified four main categories of policy tool that can be used to encourage green behavior:

- Regulatory – this includes mandatory tools that ban or limit certain products or behavior, and requirements, such as mandatory labeling.
- Economic – market-based instruments that influence purchasing decisions through taxes, incentives, subsidies, penalties or grants for green enterprises.
- Information – such as product labels and information on energy bills.

- Behavioral – tools or nudges aimed at influencing consumer behavior by leading individuals to make choices that are better for the environment [16].

#### *The global level*

The idea of more sustainable economy has been talked about for decades. A key moment was the publication of the report “Limits to Growth” by the Club of Rome in 1972. In the last few years discussion around sustainability has become a key part of the global agenda. This is because the latest scientific studies and direct experiences of environmental devastation and climate change are making it clear the economic model needs to change. The GE was the central theme of the major United Nations conference on Sustainable Development (Rio+20) held in June 2012 [17].

The transition from the “brown” economy, which is understood as the traditional industrial economy, which does not take into account environmental problems and is characterized by excessive resource consumption, is influenced by a number of factors in the GE. These factors can be divided into internal ones, which are operating within the country, and external, which are connected with the integration of Ukraine into the world community.

The most influential internal factor is the intensification of the fight against environmental pollution. This factor has a complex impact on the conditions of human life. The consequence of his action is to improve the quality of water resources, atmospheric air, soils, and so on. The state of the environment contributes to stimulating the demand for environmentally friendly, energy efficient goods and services.

The action of external factors is realized in the form of Ukraine's signing of international environmental agreements, ratification of international conventions, etc. This activity imposes on the country responsibility towards other states and promotes the development of its own regulatory framework for the functioning of the "green" economy. Therefore, within the framework of the third period of the Kyoto Protocol (2020-2030), Ukraine undertakes not to exceed 60% of greenhouse gas emissions by 2030 in comparison with the level of emissions of such gases in 1990. The criteria thus defined must be reflected in sectoral and regional strategies and target programs over time. The experience of developed countries testifies to the need to attract public investment in the green sector of the economy, as well as to create incentives for investment inflows through flexible tax, pricing and credit policies [9].

The GE, in accordance with the ideology of the "Green" of the New UNEP course, requires significant structural changes. In particular, it is necessary to reform fiscal policy in order to transform inefficient production structures, create new financial instruments for promoting green growth, reducing barriers and strengthening markets for green goods, services and technologies; to build eco-efficient infrastructure; To change the behavior of consumers by providing them with the right medium and long-term benchmarks; to promote innovation and cleaner technologies in support of green growth [3]. <http://www.dea.edu.ua/img/source/Book/1.pdf>

The transition of Ukraine to the green economy will have significant **consequences** in the future, which will open up new opportunities for economic growth:

- increase the resource base as a result of more efficient use of resources and deep processing of waste;
- inflow of investments into system-building sectors (such as energy, construction, housing and communal services, etc.);
- increasing energy efficiency, switching to alternative energy sources and reducing greenhouse gas emissions;
- reducing the energy dependence of the country, which has not only economic but political and strategic importance;
- creation of “green” infrastructure (including water supply and sewage systems, public transport, alternative sources of fuel, etc.);
- promoting employment and reducing unemployment;
- stimulating innovation activity, which should be supported by a favorable competitive environment and effective regulatory instruments.

**Conclusion.** One of the biggest current challenges is the formation of the ecological consciousness of people, the shift of focus from instant satisfaction of desires and concentration on increasing consumption volumes on reasonable self-restraint, with the realization of long-term consequences.

As a result of the study, the authors formulated the definition of a GE, which, unlike the existing ones, treats the green economy as a way of managing, which combines economic growth and environmental responsibility of economic actors of all levels.

The key principles of the functioning of GE are specified, which include: compliance with the basic principles of sustainable development; understanding the high value of natural and social capital; justice in relation to future generations; taking into account the impact on the environment and social impacts when using resources and production; resource efficiency, sustainable consumption and production.

The authors identify four levels of management, which should implement the above principles of GE, namely: the level of consumers, the level of enterprises, the level of the state, the global level. For each level, the basic conditions under which these principles can be implemented are described.

The authors also highlight the internal and external factors that influence the acceleration of the transition of humanity from “brown” to GE. The most influential factor in the internal environment is the intensification of the

fight against environmental pollution. The action of external factors is realized in the form of signing by Ukraine of international environmental agreements, ratification of international conventions, etc.

The key consequences for Ukraine in the transition to GE, which will contribute to economic growth, are described. In particular, an increase in the resource base, the inflow of investments into the system-making sectors of the economy, energy efficiency, the reduction of energy dependence of the country, the creation of a green infrastructure, increase in employment and lower unemployment, stimulate innovation activity.

The direction of further research is improving the system of indicators of efficiency of the GE.

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