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GENESIS OF THE CONCEPT OF SUSTAINABLE DEVELOPMENT AND THE DIRECTIONS OF ITS ACHIEVEMENT IN SOCIETY

ABSTRACT

To protect the environment and prevent the growth of social and environmental risks, the concept of sustainable development has been shaped. This means meeting the needs of people today without harming the environment or creating other problems in the future. The concept of sustainability is constantly changing, and different people will have different ideas about how best to implement it. In the article, with the help of modern methods of scientific knowledge, an analysis of theoretical approaches to the interpretation of sustainable development is carried out. The relevance of theoretical and methodological studies of the concept of sustainable development as the basis for the development of modern society is substantiated. Based on methodological generalizations, the principles of the concept of sustainable development have been clarified. Based on the basis of the study of the modern understanding of the essence of the concept, the directions for achieving the goals of sustainable development of society are highlighted, and approaches to assessing the sustainable development of socio-economic systems are identified.

The article analyzes the dynamics of the world sustainable development index and establishes its growing trend over the past decade and the recession during the global crisis caused by the pandemic. The presented analytical data indicate the intensification of the transition of countries to sustainable development, and this activity is much higher in low-income countries compared to high-income countries. The article substantiates the conclusion about the need to form an appropriate investment potential to ensure the sustainable development of society, which requires a strategic approach that would be based on changing the entire philosophy of thinking and political activity.

Keywords: sustainable development, concept of sustainable development, society, principles of the concept of sustainable development

JEL Classification: Q01, E70, F63

INTRODUCTION

Ensuring the sustainable development of humanity is recognized today as one of the most significant problems that the world community faces. As noted in [32, p. 21], "humanity is at a turning point in its evolution on the planet, which requires a reorientation to a development paradigm that will support people's lives and the natural environment, and the concept of sustainable development provides such a chance". The problem of ensuring sustainable development has been in the center of close attention of scientists and practitioners for many years, but due to its complexity, multifaceness, importance and degree of influence on the development of society, many of its questions remain open and require further research. At this time, there is no unified attitude towards the phenomenon of sustainable development has not been formed, until now there is no unified approach to the interpretation of the concept of "sustainable development" as an economic category. In fact, scientists have different views on the types of sustainable development, on the ways and mechanisms of its provision, etc. The development of economic science within the framework of the search for solutions to the problems of social development, the sources of their occurrence, the consequences of their existence, complementarity and interdependence contributed to the consideration of issues of sustainable development within the framework of philosophy, ecology,

world, national and regional economies, political economy, economic and mathematical modeling, law, sociology, biology and other disciplines, which led to the emergence of new areas of science (ecological economics, "green" economics, global studies, social philosophy, etc.)

The development of society and the processes of economic and demographic growth are observed more actively. Taking this into consideration, the impact of human activities on the environment is increasing significantly, and the problem of ensuring social balance is becoming more acute. In such conditions of excessive natural resource usage and growing environmental and social risks, the concept of sustainable development must meet the current needs of humanity without compromising the ability of future generations to fulfill their demands. Like every theory and concept, it undergoes constant changes over time that will affect the mechanisms for achieving a sustainable society.

LITERATURE REVIEW

The genesis of the concept of sustainable development is represented by the scientific works of domestic and foreign scientists. O. Bilous investigates world and national problems of sustainable development in the conditions of economic globalization. Based on the generalization and evaluation of international experience, the theoretical and political aspects of sustainable development in its main dimensions, such as economic, social, ecological, and informational, are revealed.

V. Egorov analyzes the nature of sustainable development, to specify its contents, in all its objective manifestations, conceptual differences in the approaches of his principles, clearly identify the impacts on the functioning of modern public administration, their organizational and functional capacity management processes for sustainable development. M. Esarovych researched public administration for sustainable development: challenges and prospects at the national and local levels. O. Obolenskyi, R. Shchokin, Ye Romanenko and I. Zhukova investigated directions of public management in the economic, institutional, social, cultural, and political spheres are proposed considering the stated tendencies in the formation of modern civilization, etc. According to B. Burkinskyi, sustainable development is the ability of the ecological and economic system to withstand changes caused by external and internal influences in the economic and ecological subsystems, as well as the ability to maintain a certain dynamic balance, is defined as sustainable development [4].

A. Carroll differentiates between philanthropic, ethical, legal, and economic responsibilities and summarizes his findings in the pyramid of Corporate Social Responsibility (CSR). This concept addresses shareholder and other stakeholder of companies [35]. G. Aras and D. Crowther define sustainability as the result of a process ("sustainable development"). This takes the fulfillment of economic, ecologic, and social criteria into account. In their view, sustainable development is part of an organizations' corporate governance. [36]. J. Stiglitz notices that sustainable development is considered the development that should allow humanity to avoid a possible premature disappearance from the face of the Earth as a result of self-destruction under the influence of its own barbaric actions in relation to the surrounding reality [20].

AIMS AND OBJECTIVES

The aim of the study is to substantiate the need to implement the concept of sustainable development and the directions of its achievement in society. The main aspects that are addressed in the article are:

- analysis of theoretical approaches to the interpretation of sustainable development;
- clarification of the principles of the concept of sustainable development;
- allocation of approaches to assessing the sustainable development of socioeconomic systems at different levels;
- study of the dynamics of sustainable development indices.

METHODS

In the article, general scientific and specific methods of scientific knowledge are used. In particular, the methods of analysis, abstraction and synthesis are used to study of theoretical and methodological foundations of the genesis of the concept of sustainable development. The methods of generalization, structuring, graphic method is used to highlight the mechanisms of achieving the goals of sustainable development of society. Methods of induction and deduction, systematization are applied to research problems and prospects of the concept of sustainable development.

RESULTS

The world community recognized that balanced development "must become a priority issue on the agenda of international cooperation. The understanding of balanced development as a harmonious combination of economic, social and ecological components of development is generally recognized. Only the achievement of balance between them will ensure the possibility to move to such social development, which will not exhaust natural and human resources, and therefore will be able to last for a long time. In the Ukrainian language, the term "sustainable development" has gained popularity. It has also been established in the legislation of Ukraine, although it is a combination of words with the opposite meaning (permanent - permanence, development - implies the presence of changes). The concept of balanced development was the answer to the challenge of the time. It is an alternative to the dominant model of modern development, which is based on considering nature only as a source of raw materials for the production of various goods" [33, p. 28].

Sustainable development is a comprehensive human-centered concept, i.e. it means improving the standard of living within the long-term ability of the ecosystem to meet all human needs. Sustainable development is the development of countries and regions, "when economic growth, material production and consumption, as well as other types of social activities take place within the limits determined by the ability of ecosystems to recover, absorb pollution and support the livelihoods of current and future generations" [32, p. 14]. Therefore, sustainable development is the basis for solving key global problems, such as poverty and hunger, human health, inequality, unemployment, climate change, biodiversity loss, water supply and sanitation, energy, urbanization, and others.

Ensuring balanced development is a problem of changing social relations and forming such a society that will not destroy its environment. "The transition to such a model of development also has an ethical meaning, it is a shift in the value orientations of many people. Like any social ideal, the concept of balanced development is a guide for creating a society that will develop in harmony with nature. The main principles of balanced development are:

- combination of nature conservation and social development;
- satisfaction of basic human needs;
- achievement of equality and social justice;
- ensuring social self-determination and cultural diversity;
- maintaining the integrity of ecosystems" [33, p. 29].

Turning to the theoretical and methodological foundations of the concept of sustainable development, firstly, we analyze the historical background of this concept. The concept of sustainable development is a continuation of V. Vernadskyi's teachings on the noosphere. On the edge of centuries, the doctrine of the noosphere turned out to be a necessary platform for the development of a unified concept of sustainable ecological, social, and economic development. In his work "A few words about the noosphere," the author notes: "In the 20th century, for the first time in the history of the Earth, man learned to cover the entire biosphere, completed the geographical map of the planet Earth, settled on its entire surface... Humanity has evolved into a unified entity over the course of its existence. There is not a single patch of earth where a person cannot live if needed... For the first time in the history of mankind, the interests of the masses—everyone and anyone—and the free thoughts of the individual that determine the life of mankind, are the measure of its idea of justice. Humanity, taken as a whole, becomes a powerful geological force. And before it, before its thought and work, the issue of rebuilding the biosphere for the benefit of humanity as a whole arises. This is a new state of the biosphere, which we are approaching without noticing it. This is the "noosphere."...The noosphere is a new geological phenomenon on our planet. In it, man becomes the largest geological force for the first time. It can and should rebuild a part of its life with its work and thought, completely rebuild it compared to what was before." [19, p. 117].

For the first time, the mathematical model of global development in the conditions of the crisis of socio-economic and ecological systems "World-2" was substantiated by J. Forrester in 1971 [9]. Further, these studies were reflected in the works of scientists under the leadership of D. Meadows, where the "World-3" model was presented, and that affirms the stabilization principle of the modern development of the world community to achieve "global equilibrium"[21, 412]. Scientists of the Rome Club under the leadership of M. Mesarovich and E. Pestel also worked on this concept as part of the "Survival Strategy" project, namely concentrating on the criteria for the development of developed and developing states [11]. The mentioned problem was developed and studied in many world countries, including the Soviet republics [8].

The formalization of the concept of sustainable development took place at the end of the last century, namely in the program of economic and social development of humanity in the new century, "Agenda XXI", which was adopted by 179 UN member states at the conference on natural environment and development in Rio-de-Janeiro. The concept of sustainable development in this document involves "modification of the biosphere and the use of human, financial, living, and

non-living resources to meet human needs and improve the quality of life" [1, 32]. Later in 2002, the World Summit on Sustainable Development in Johannesburg adopted the "High-Level Action Plan", which defined concrete actions and time frames for their implementation and announced the world's transition to sustainable development [17]. A brief historical course of the author's interpretations of "sustainable development" is presented in Table 1.

Table 1. The genesis of the definition of "sustainable development". (Compiled by the author)

Author	Author's view on sustainable development	Conditions for achieving a sustainable development
H. Barlibaeva	Sustainable development is a concept, a theory about the possibility of a balanced, leveled, dynamic state and the development of the world community in unity with the environment within the socio-natural system, which is evaluated according to certain criteria or indicators [2]	Elimination of any manifestations of instability of the socio-natural system
E. Borschchuk A. Lysachok	Sustainable development should be defined as society's bioharmonious or sustainable development that is acceptable for preserving man's ecological niche [3]	Sustainable development at any level is possible only under the conditions of the availability of appropriate investment resources and the need to form a system of investment resources. The effective attraction, accumulation, and use of investment is an objective prerequisite for achieving the Sustainable Development Goals (SDGs).
B. Burkynskyi V. Stepanov S. Kharichkov	The ability of the ecological and economic system to withstand changes caused by external and internal influences in the economic and ecological subsystems, as well as the ability to maintain a certain dynamic balance, is defined as sustainable development [4]	A country's transition to sustainable development is determined by its role and place in the world economy, resource provision, scientific-technical and socio-economic potential, opportunities for its use, and foreign economic ties.
Z. Gerasymchuk	Sustainable development of the region is a process of constant transformation of the qualitative and quantitative characteristics of the regional socio-ecological and economic systems, aimed at achieving a dynamic balance between society, economy, and environment that ensures the well-being of current and future generations [10, p. 32]	The transition to a model of sustainable development will mainly depend on the state, which, in active interaction with other business entities, must initiate the formation of qualitatively new institutional foundations for a new model of development where economic, social, and environmental factors are harmoniously combined.
B. Danylyshyn L. Shostak	Balanced sustainable development means a system of social production that achieves the optimal balance between economic development, the normalization of the quality of the natural environment, and the growth of the material and spiritual needs of the population [5, p. 367]	Responsible use of the natural resource potential of society
V. Danilov-Danilian	Sustainable development is defined as development that does not push global civilization beyond the biosphere's economic capacity. It does not cause destruction processes in the biosphere, the result of which can be the emergence of conditions that are fundamentally unacceptable for people [6]	Responsible use of the biosphere
UN experts	Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs [17]	Implementation of two levels of the needs: implementation of the needs of the poorest strata and the need to care for social justice of the wealthy strata.
UNESCO experts	Sustainable development makes it possible to achieve prosperity, justice, and a healthy environment through the right choices and policies of states [7]	Solving three interrelated tasks: achieving economic growth, environmental protection, and social justice.
P. Samuelson	Sustainable development is a balanced form of development that preserves society's ability to self-regulate [13]	Directing efforts to restore structural connection violations that the system experiences in the event of a balance loss
J. Stiglitz	Sustainable development is considered the development that should allow humanity to avoid a possible premature disappearance from the face of the Earth as a result of self-destruction under the influence of its own barbaric actions in relation to the surrounding reality [20]	Inequality, unemployment, environmental pollution is insurmountable without the active participation of the state.
D. Turcotte D. Sornette	The process of society's transition to sustainable development is a peculiar form of movement from instability to society's stability; it requires large-scale, deep, and multifaceted actions: the revision of philosophical and worldwide view concepts and the restructuring of political systems and states at all organizational levels [16].	Mechanisms of state management that should not only ensure the transition of societies to sustainable development but also prevent possible risks associated with the probability of not achieving appropriate sustainability in the activities of its subjects within a certain period of time.
A. Ursul	Sustainable development is a managed, system-balanced, socio-natural development that does not destroy the natural environment and ensures the survival and long existence of civilization [18]	The implementation of mechanisms to ensure sustainable development should belong not only to state authorities in the field of national security but also to all spheres of social activity that are called to protect safety through the development of their own activities in a certain subject area.

As the study shows, most authors interpret the meaning of the concept of "sustainable development" based on "process and system approaches and highlight its following aspects: rational use of natural resources; preservation and reproduction of the environment; increasing the efficiency of economic activity; overcoming social problems; taking into account the interests of future generations" [34, p. 51].

The main approaches to the interpretation of the concept of "sustainable development" can be grouped as follows (Table 2).

Table 2. Approaches to the interpretation of sustainable development. (Source: [32])

Approach	Characteristics and supporters
Environmental and systemic	The approach is ecocentric, within its framework nature protection issues and ecology issues are recognized as the main elements. Sustainable development is considered synonymous with environmental sustainability, while the economic and social spheres are opposed to this sustainability and perceived as a threat to it. It was reflected in the works of D. Meadows, F. Holley, A. Granberg, V. Danilov-Danilian, and others. One of the progressive directions of the ecological-systemic approach is the noosphere (developed in the works of E. Leroy, P. Teilhard de Chardin, V. Vernadskyi, A. Ursul), which provides for the harmonious coexistence of nature and human, which will be possible thanks to the application of knowledge and the development of the latter's spiritual values.
Concepts of "weak" and "strong" stability	The position of the ecological economy, which was the so-called concept of strong sustainability, was first formulated by G. Daly and R. Costanzo. Proponents of the "strong" version of sustainability called for the strict preservation (non-reduction) of natural capital (raw resources and environmental services) and the subjection of economic activity to strict restrictions in the interests of ensuring environmental sustainability: limiting consumption, minimizing the replacement of natural capital by artificial capital, severely limiting or excluding economic growth in for the purpose of saving resources. The concept of weak sustainability envisages economic growth, first of all, due to the development of scientific and technical progress, which weakens the influence of the factor of limitation of natural resources, as a result of which the possibility of their replacement arises. The concept is built according to the rules established by a human and is based on the requirements that he puts forward to the quality of the living environment in order to satisfy his own needs, while this approach does not deny the need for the coordinated development of the economy and ecology, the rational use and reproduction of natural resources, preservation of biodiversity and ensuring environmental safety. Strong and weak models of sustainable development were developed in the works of G. Atkinson, D. Pierce, K. Williams, E. Millington, R. Turner, and others.
The threefold concept of sustainable development	It originated in the works of experts of the Club of Rome, who paid attention to the interdependence of three key aspects of development - ecological, economic and social. One of its founders is considered to be E. Barbier, whose works in 1987 first showed that the goals of environmental protection and economic development not only do not contradict each other but, on the contrary, can contribute to mutual reinforcement. Within the framework of the triune approach, ecology, social and economic problems are considered as a single whole. At the same time, an attempt is made to combine indicators of development in three spheres, thus revealing a complex system of interrelationships and regularities. The goals of sustainable development are the achievement of a high standard of living of the population, a prosperous economy and preserved nature. The concept was developed in the works of E. Barbier, D. Saks, and others.
The concept of corporate sustainability	The approach to understanding the sustainable development of the company was proposed by J. Elkington and developed in the works of R. Steurer, T. Dillik, K. Hockerts. In this case, the concept of sustainable development, which is traditionally considered at the macroeconomic level, is transferred to the microeconomic one. Within this concept, the sustainable development of the company is considered as a balance of economic, environmental and social responsibility. J. Elkington defined the "triple bottom line concept" (TBL, 3BL), which considered three dimensions of sustainable development (ecological, economic, social) to the company's activities while highlighting three main elements of corporate sustainability, the so-called "3P" (people, planet, profit) - "people - planet - profit". Today, the concept has received an expanded interpretation, turning into the concept of a four-dimensional criterion, in which the fourth dimension is managerial.
A cluster approach to sustainable development	Proponents of the cluster approach (M. Porter, M. Kramer, A. Carroll, etc.) believe that it is possible to ensure sustainable development through the creation of so-called "clusters" - geographically concentrated groups of interconnected companies and associations. This approach is perceived mainly as a tool for the formation of sustainable development at the regional level, which, on the one hand, ensures an increase in the competitiveness of the companies included in the cluster, and on the other hand, promotes an increase in the standard of living of the local community. Thus, the cluster approach analyzes the problem of sustainable development at the micro- and meso-levels and develops the principles of the concept of corporate sustainability

The concept of sustainable development involves the selection of three approaches: economic, social and ecological, which reflect their special importance, the presence of interconnection and interdependence between them while ignoring at least one of them can undermine the overall stability of the system.

The economic approach in the concept of sustainable development is based on the postulates of the neoclassical theory, in particular, on the assumption of J. Hicks, according to which society's ability to produce income is limited by the condition of preserving the aggregate capital necessary for the production of this income [3, 32]. This means the need for rational use of limited resources at the disposal of society, and the use of environmentally friendly production methods and technologies. However, the condition of preservation of the aggregate capital does not mean the immutability of its structure, since there is a fact of interchangeability of types of capital. In this regard, two types of sustainability are considered within the framework of the concept of sustainable development - weak, based on the hypothesis of the growth over time of the total amount of produced and natural capital, and strong, which assumes the growth of mainly natural capital. Both types of development are permissible. The development model based on weak sustainability is more flexible and provides more opportunities for economic growth, but its reverse side is the increased risk of conflicts between the interests of economic development, on the one hand, and ensuring social well-being and environmental safety, on the other. The development model, which assumes strong sustainability, on the contrary, is characterized by low non-economic risks, its advantage is the priority of public interests and global sustainability of the process of social development. However, the possibilities of economic subjects in the case of choosing such a model are very limited - due to the direct dependence on the natural potential that is used or not used in economic activity. The choice in favor of one or another economic model of development is the subject of discussions among scientists, politicians, businessmen and society. It is determined by the tasks facing the state in specific conditions at this historical stage, the priorities of society, national traditions and many other factors.

The social component of sustainable development focuses on the non-economic interests of the individual. It covers the entire spectrum of human rights, both individual and collective, including issues of corporate governance, as well as a wider range of problems of maintaining the stability of social and cultural systems, multiplying humanitarian values of modern society. According to the basic idea of sustainable development, social sustainability comes from the principle of "intergenerational justice" - the recognition that future generations should have, at least, equal access to social resources. In addition, it is believed that equal access to social resources should also be ensured within the current generation. Therefore, an important aspect of social stability is the fair distribution of benefits. Achieving sustainable development is unthinkable without creating an effective decision-making system that takes into account the experience of social development, based on pluralism and universal values. Within the framework of the concept of sustainable development, man acts as a subject and an active force of development. Based on this, it is implied that a person should take a direct part in the processes that form the sphere of his life, take part in making and implementing decisions, and monitor their implementation. A property of some elements of social capital is the irreversible character of their change. This is characteristic, for example, of cultural diversity (languages, national cultural traditions, etc.), which has a tendency to degradation, reduction or irreparable loss of quality under the influence of the process of cultural globalization. Some elements of social capital are unique and irreplaceable by other types of capital. Socially sustainable development, despite the antagonism of most of its values to the principles of economic development, is an integral part of many economic decisions. In particular, various aspects of social sustainability are often considered within the framework of "socially responsible investment" (Socially Responsible Investment - SRI). Among the social sustainability criteria most often used by investors are characteristics of social and labor relations, human rights, product safety, transparency and business management structure [11].

The ecological component was initially the fundamental idea of the concept of sustainable development (this is quite fair since natural capital was and will be the basis for the development of civilization in the foreseeable future). It is designed to ensure the integrity of physical and biological natural systems in the process of their interaction with economic and social systems. The concept of natural systems in this case has a broad interpretation and, in addition to natural complexes, also includes an artificially created anthropogenic environment. At the same time, the main attention in the process of studying such wide natural systems is not given to their ability to remain in some "ideal" static state, but to the abilities of these systems to self-develop and adapt, as a reaction to de-stabilizing actions by other systems. However, it should be considered that, unlike economic and social systems, environmental systems have stricter load restrictions and, often, less stability. Thus, excessive exploitation of natural resources, pollution of the environment and reduction of biological diversity lead to an irresistible loss of the ability of ecological systems to self-renew, that is, to their destruction or unwanted transformation. In addition, some components of natural capital are irreplaceable, and their consumption is irreversible [24]. In particular, natural capital cannot always be replaced by economic capital (for example, biodiversity objects, the loss of which is irreparable). Another reason for the limited replacement of natural capital is the multi-functionality of many types of natural resources. For example, forests not only provide the economy with raw materials for paper production (a

resource is replaced) but also perform many different non-economic functions (preserving biodiversity, regulating the water balance, cleaning the air from dust, absorbing carbon dioxide, etc.).

The concept of balanced development involves the implementation of a holistic system of the following principles of activity:

- Humanity can give the development a sustainable and long-term character, so that it meets the needs of people living now, without losing the opportunity for future generations to meet their needs;
- Limitations that exist in the field of exploitation of natural resources are relative. They are connected with the modern level of technology and social organization, as well as with the ability of the biosphere to self-renew;
- It is necessary to satisfy the elementary needs of all people and give everyone the opportunity to realize their hopes for a more prosperous life. Without this, sustainable and long-term development is simply impossible. One of the main causes of environmental and other disasters is poverty, which has become a common phenomenon in the world;
- It is necessary to adjust the living conditions of those who use excessive means (monetary and material), with the ecological possibilities of the planet, in particular regarding the use of energy;
- The size and rate of population growth must be consistent with the production potential of the changing global ecosystem of the Earth [23].

At the same time, the system-forming principle is the principle of integrity.

Taking into account the authors' views on the economic aspect of the concept of sustainable development presented in Table 1, we point out the main mechanisms applied to ensure the functioning of a sustainable society that help to confirm the hypothesis of the implementation of the concept of sustainable development as a theoretical and methodological basis for the development of green financing. Based on the findings of the generalization shown in Figure 1, it is possible to conclude that the development of appropriate investment resources, which should be intended to ensure the balance of the economic system in the direction of achieving economic growth, environmental protection, and social justice, is a necessary prerequisite to ensure sustainable development.

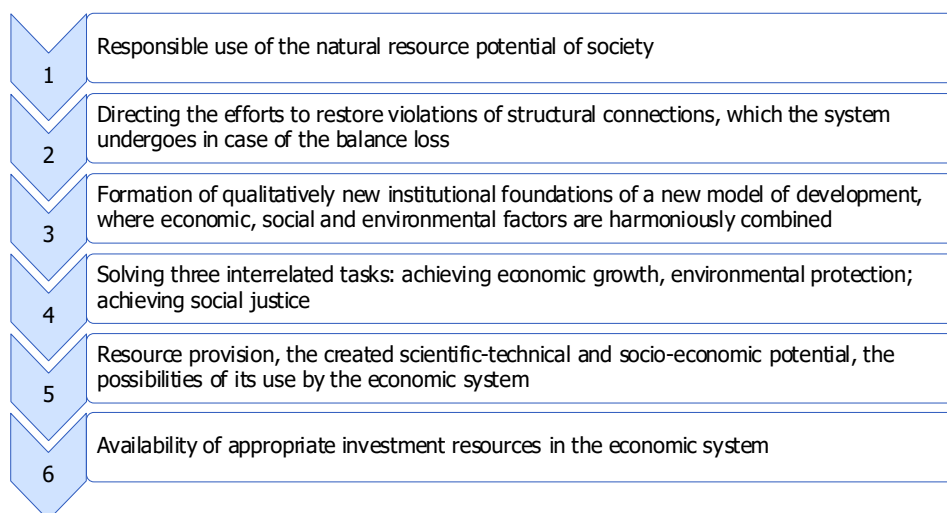


Figure 1. Directions for ensuring sustainable development (economic aspect). (Source: made by the author according to the materials of Table 1)

In the theory of sustainable development, different approaches to assessing the sustainability of socio-economic systems are distinguished, including both those used for international comparison of countries and the authors' methods. In a number of countries, such as the USA, Great Britain, Denmark, Portugal and others, indicator systems have been developed to assess sustainability. Also, a separate group of approaches can be considered: Those based on the modelling of the provision of social and economic systems with natural resources and the construction of global development models that take into account the influence of a complex of factors. A recent trend has been the focus of scientists and practitioners on assessing the sustainability of development at the regional and local levels (including individual cities). Table 3 shows approaches to assessing the stability of socioeconomic systems.

Table 3. Approaches to assessing the sustainable development of socio-economic systems at different levels. (Source: formed by the authors based on [24; 25–29])

The name of the indicator	Purpose
The indicator of "valid savings" – Genuine saving	Developed by the World Bank to assess the sustainability of the economy. The purpose of the indicator is to present "the value of the net change in the whole range of assets that are important for development: productive assets, natural resources, environmental quality, human resources and foreign assets." The correction of gross domestic savings is carried out in two stages. At the first stage, the value of net domestic savings (<i>NDS</i>) is determined as the difference between gross domestic savings (<i>GDS</i>) and the consumption of fixed capital (<i>CFC</i>). In the second stage, net domestic savings are increased by the amount of education expenditure (<i>EDE</i>) and decreased by the amount of the depletion of natural resources (<i>DRNR</i>) and damage from environmental pollution (<i>DMGE</i>): $GS = (GDS - CFC) + EDE - DRNR - DMGE.$ All input values are taken as a percentage of GDP. Calculations based on this methodology showed a huge discrepancy between traditional economic indicators and ecologically adjusted ones. Against the background of economic growth, the ecological decline is often observed
Indicator of environmentally adjusted net domestic product (EDP)	It is used in the ecological correction of national calculations and is calculated according to the formula: $EDP = (NDP - DPNA) - DGNA,$ where NDP is net domestic product, DPNA is the cost estimate of natural resource depletion, DGNA - cost assessment of environmental damage (waste disposal, air and water pollution, etc.)
Genuine Progress Indicator, GPI	Reflects an attempt to create an alternative to GDP, unlike which this indicator takes into account environmental and social aspects of development. It includes the following components: crime and family breakdown, changes in the amount of free time, domestic and volunteer work, dependence on foreign capital, income distribution, defence spending, the "life" of durable goods, resource depletion, pollution, long-term environmental damage
Environmental Sustainability Index	Proposed by Yale and Columbia University. It is calculated based on 22 indicators. Each indicator is determined by averaging 2–5 variables, a total of 67 variables are selected. Formally, all variables receive equal weight when calculating the index, since there are no universally recognized priorities in the ranking of environmental problems. The "ten" most stable countries include Finland, Norway, Canada, Sweden, Switzerland, New Zealand, Australia, Austria, Iceland, Denmark and the USA. CIS countries occupy places from 35 to 50
Index of Sustainable Economic Welfare	Proposed by Cobb and Daley (USA) in 1989. It is the size of the GDP per capita, adjusted for the sum of expenses for socio-economic and environmental factors. The development of this index is an attempt to build an aggregated monetary index, which is directly compared with the standards of national accounts, taking into account important points that are denied in other methods due to their high aggregation. When calculating ISEW, such variables as the cost of water pollution, air pollution, noise pollution, loss of agricultural land, compensation to future generations for the loss of non-renewable energy sources, etc. are taken into account.
UN CSD Sustainable Development Indicator System	Developed by the UN Commission on Sustainable Development (UN CSD) in 1996. It is one of the most comprehensive in terms of coverage. The system is divided into four areas: social, economic, ecological and institutional. Indicators were selected according to the scheme: pressure, condition, and reaction. The initial list included 134 indicators, then this list was reduced to 60
OECD system of environmental indicators	Developed by the Organization for Economic Cooperation and Development (OECD). Makes it possible to identify cause-and-effect relationships between economic activity and environmental and social conditions
Globesight Global Development Model	It combines such subsystems as demography (population), economy (GDP, energy, investments), ecology (use of natural resources). The advantage of this model is the possibility of forecasting the future state, analyzing the implemented policy, the effect of the decisions made, visibility and a wide range of ideas, etc.
Methodology for assessing sustainable development of the Institute of Applied System Analysis of NASU and MESU	In the methodology, a metric for measuring the processes of sustainable development (MMPSD) for the regions of Ukraine is proposed. According to the MMPSD, sustainable development is assessed using the appropriate index (<i>Isd</i>) in the space of three dimensions: economic (<i>Iec</i>), environmental (<i>Ie</i>) and social + institutional (<i>Is</i>). This index is a vector, the norm of which determines the level of sustainable development, and its spatial position in the coordinate system (<i>Iec</i>, <i>Ie</i>, <i>Is</i>) characterizes the degree of "harmony" of this development (the degree of harmonization of sustainable development is <i>G</i>). Equidistant vector <i>Isd</i> from each of the coordinates (<i>Iec</i>, <i>Ie</i>, <i>Is</i>) indicates compliance with the greatest harmony of sustainable development. The approach of this vector to one of the coordinates indicates priority development according to the corresponding dimension and neglect of the other two
H. Bossel's method	It is based on the use of the "guiding star". To assess the stability of the system, the concept of "sustainability" of the system was introduced, in order to preserve it, the system must respond adequately to threats. At the same time, the response time of the system should be less than the time of threat propagation. Considering the properties of the system's environment, as well as its internal properties, the concept of "basic landmarks" is also introduced, which together give a complete picture of the viability of the system. They include the following: existence; efficiency; discretion; security; adaptability; connection; psychological needs. To quantify the stability (or viability) of the system, the dimensionless Béciot index is used, which is defined as the ratio of two specific rates of change in a given period of time: the rate of response and the rate of propagation of the threat (disturbance).

The economies of all developed countries that joined the UN initiative of 1992, published in the document "Agenda XII" [1], are currently based on the concept of sustainable development. In order to prove the relevance of the selected research topic more concretely, the concept of sustainable development, to the following analytical indicators reflect the state of development.

To determine the level of sustainable development of countries in the world, the Sustainable Development Solutions Network uses the Sustainable Development Goals Index (SDG Index), which is calculated for 157 countries in the world based on 100 indicators related to the achievement of the SDGs. The dynamics of the value of the Sustainable Development Goals Index for the period 2010–2021 are shown in Figure 2.

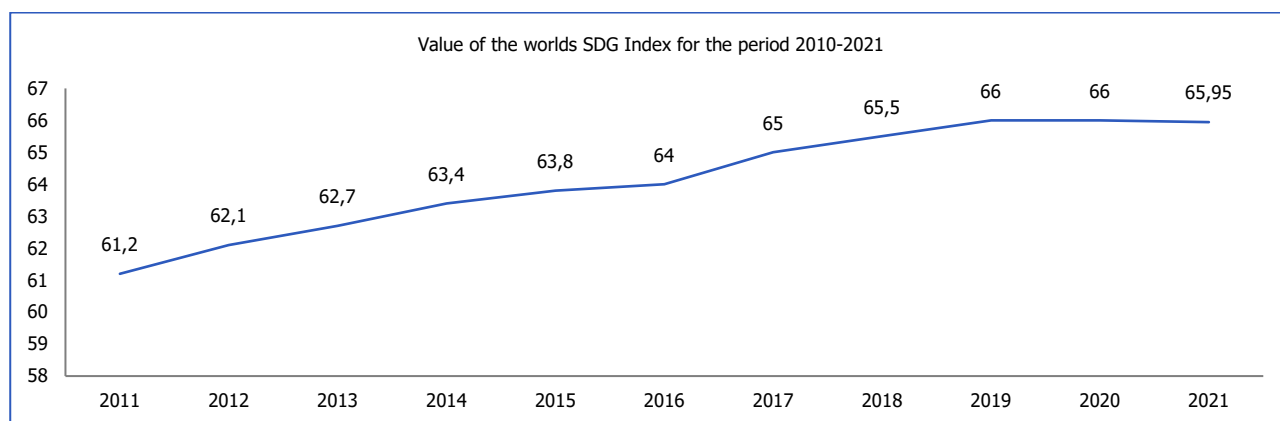


Figure 2. Dynamics of the world's SDG Index for the period 2010-2021. (Source: compiled by: [14; 6])

During the specified period, the value of the index increased steadily, with the exception of the last two years, when it remained at a stable level of 66. The SDG Index average even declined slightly in 2021, partly due to slow or no recovery in poor and vulnerable countries. Multiple health and safety crises have led to reverse progress in achieving the SDGs. This is a serious result, especially given that before the pandemic, the world was progressing towards the SDGs at a rate of 0.5% per year between 2015 and 2019 (although it is too slow for the 2030 deadline). At the same time, the fact that low-income countries show greater progress than high-income countries is undeniable (Figure 3).

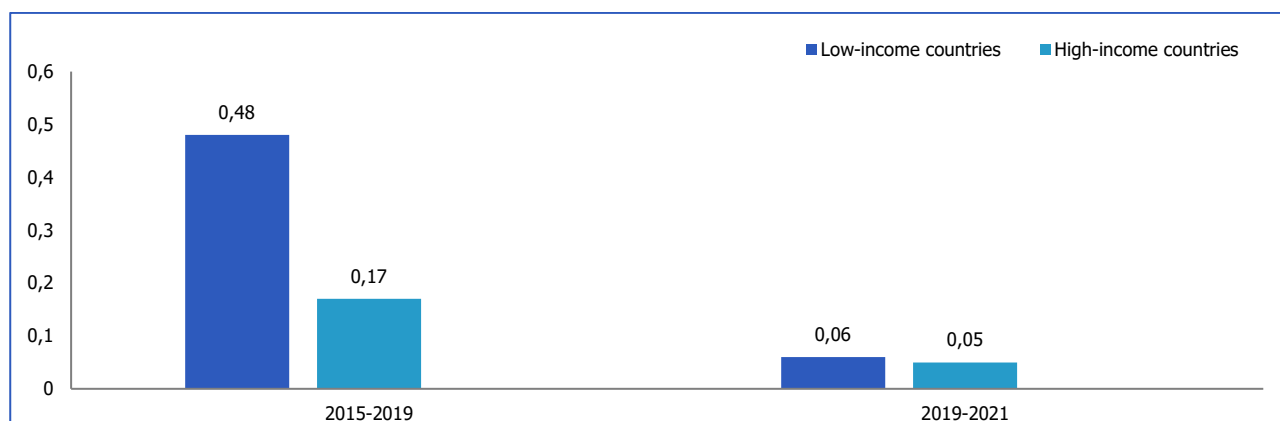


Figure 3. Comparison of the levels of growth of the SDG Index of low- and high-income countries in the periods 2010-2019 and 2019-2021. (Source: compiled by: [20; 11])

It is worth noting that the achievement of climate goals is being implemented too slowly, especially in high-income countries, and the recovery and acceleration of progress in achieving the SDGs in all countries, including the poorest and most vulnerable, should be a major priority of the international financing system for sustainable development [15].

Therefore, to solve the paradox between economic growth and stability, it is necessary to find ways to balance these processes. This balance can be achieved mainly by sharply limiting the spirals of economic, population and resource depletion. The effects of these actions will certainly affect the standard of living of many countries, but they must be accompanied by an understanding that the nature of the problem is the tension between short-term growth and long-term survival.

DISCUSSION

The main components of sustainable development are the combination of the interests of society, the economy and ecology. Taking into account all components, it is possible to increase the level of public welfare. The main goal of sustainable development is, first of all, to improve the quality of life. The main priorities should be the physical and moral health of society, high-quality drinking water, atmospheric air, safe products, goods and services, safe and comfortable conditions for living, working, studying, etc. [2]. The paradigm of sustainable development includes requirements for environmental protection, social justice, and the absence of racial and national discrimination, and is aimed at improving the standard of living of the society. In countries where these requirements are ignored at the state level, they try to put a "convenient" meaning into the concept of sustainable development, emasculating the real one. Thus, in Ukraine, the term "sustainable development" is often used to mean only the steady growth of the economic indicators of the country, its regions, cities, villages, and individual branches of the economy. Sometimes they add to this the implementation of unsystematic measures to preserve the environment and improve the sanitary conditions of people's living and work. This interpretation of the term was criticized by G. Daly and is not only a big mistake but also its profanation [30].

It is worth agreeing with the opinion of L. Scutaru [31] that sustainable development requires a new integrative approach, which should combine economic theory with the study of natural sciences; a new multidisciplinary concept is needed, aimed at smoothing the hard boundaries between various modern sciences in order to create conditions for a global view of all economic, social and environmental phenomena within the framework of a homogeneous set in which they all interact with each other.

The presented analytical data indicate the intensification of the process of transition of countries to sustainable development, and this activity is significantly higher in low-income countries compared to high-income countries. However, the question of the expediency of focusing on the widespread introduction of the concept of sustainable development in Ukraine in the conditions of martial law and the post-war period remains open. Further research should give an answer to the debatable question: is it worth starting the reconstruction of the post-war Ukrainian society on the basis of the concept of sustainable development and what should be the mechanisms that will lead to an effective result.

CONCLUSIONS

The concept of sustainable development is considered to be one of the most relevant theories underlying the further effective development of world society. The presented data indicate the intensification of the transition process of countries toward sustainable development, and this activity is significantly higher in low-income countries compared to high-income countries.

Analysis of theoretical approaches to the concept of sustainable development made it possible to identify the directions for achieving a sustainable society and come to the conclusion about the need to form appropriate investment resources and direct them to the economic sphere, the sphere of environmental protection, ensuring social justice in society.

The implementation of the ideas of balanced development requires a strategic approach, which would be based on a change in the entire philosophy of thinking and political activity, which involves a transition: from the development and implementation of fixed plans, which quickly become obsolete, to the creation of an adaptive system that can be constantly improved; from the view that only the state is responsible for development to the fact that it is the responsibility of the entire society; from centralized and controlled decision-making to the spread of transparent negotiations, cooperation and concerted actions; from focusing on the adoption of laws or other regulatory acts to focus on quality results of management processes and public participation processes; from sectoral to integrated planning; from a focus on expensive "projects" (and, accordingly, dependence on foreign aid) to development that is determined and financed based primarily on the country's own capabilities.

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ГЕНЕЗА КОНЦЕПЦІЇ СТАЛОГО РОЗВИТКУ ТА НАПРЯМИ ЇЇ ДОСЯГНЕННЯ В СУСПІЛЬСТВІ

Щоб захистити навколишнє середовище та запобігти зростанню соціальних та екологічних ризиків було розроблено концепцію сталого розвитку. Це означає задоволення потреб людей сьогодні, не завдаючи шкоди навколишньому середовищу та не створюючи інших проблем у майбутньому. Концепція сталого розвитку постійно змінюється, і різні люди матимуть різні уявлення про те, як найкраще її реалізувати. У статті за допомогою сучасних методів наукового пізнання проведено аналіз теоретичних підходів до трактування сталого розвитку. Обґрунтовано актуальність теоретико-методологічних досліджень концепції сталого розвитку як основи розвитку сучасного суспільства. На основі методологічних узагальнень уточнено принципи концепції сталого розвитку. На базі проведеного дослідження сучасного розуміння сутності концепції виділено напрями досягнення цілей сталого розвитку суспільства, а також виокремлено підходи до оцінки сталого розвитку соціально-економічних систем.

У статті проаналізовано динаміку світового індексу сталого розвитку та встановлено її зростаючий тренд за останнє десятиріччя і спад в період світової кризи, викликаний пандемією. Представлені аналітичні дані свідчать про активізацію процесу переходу країн до сталого розвитку, причому ця активність значно вища в країнах з низьким рівнем доходу у порівнянні з країнами з високим рівнем доходу. В статті обґрунтований висновок щодо необхідності формування відповідного інвестиційного потенціалу для забезпечення сталого розвитку суспільства, що потребує стратегічного підходу, який би базувався на зміні всієї філософії мислення та політичної діяльності.

Ключові слова: сталий розвиток, концепція сталого розвитку, суспільство, принципи концепції сталого розвитку

JEL Класифікація: Q01, E70, F63