

SUSTAINABLE DEVELOPMENT AS A CONCEPT IN THE RAPIDLY GLOBALIZING WORLD ECONOMY

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Abstract. The article studies the concept essence of the "sustainable development" as the basis of the threefold concept of ecological, socioeconomic development. The issue of the peculiarities of the current stage in the world economy development, its nature, factors and relationship with globalization has been studied. The aim of the article has been to prove the need to find new forms of economic processes organization of the global economy, focused on dematerialization of production, its intellectualization, digitalization, the use of genetic engineering and biotechnology. To conduct the research presented in the article, the methods of comparative analysis were used to compare the indices of sustainable development of post-socialist countries in the UN global ranking of sustainable development; graphical method - for visualization growth rate of SDIs; generalization method - to form the conclusions of the study. It has been concluded that the transition from the ideology of accumulating material wealth to the ideology of "reasonable sufficiency", from the ideology of competition to the ideology of mutual assistance, the formation of a balanced system of environmental management and greening of technologies in industry, the creation of social systems of standards that would help maintain the required level of equity in the distribution of benefits will let achieve global sustainable development.

Keywords: sustainable development, globalization, balanced development, harmonization of the world economy.

JEL Classification: F20, F29, C10

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Introduction. In recent years, the term "unsustainable development" has become a common sign of our civilization crisis, which is constantly approaching. We should note that "instability" is a system-wide crisis that cannot be overcome without a well-balanced strategy for the development of objectively interconnected subjects and objects of the world process. On the other hand, it is no longer possible to conduct long-term planning within individual countries or large-scale areas of human activity without a serious comparison with global sustainability criteria.

Literature review. The basis for the development of a threefold concept of sustainable ecological, socioeconomic development, which systematically combines three main components – economic, environmental and social, should be considered the teachings of V. Vernadsky on the noosphere [1]. This concept was summarized at the UN World Summits in 1992 and 2002, which were attended by more than 180 countries, well-known international organizations and leading scientists of the world.

Aims. The aim of the article has been to prove the need to find new forms of economic processes organization of the global economy, focused on dematerialization of production, its intellectualization, digitalization, the use of genetic engineering and biotechnology.

Research methods. To conduct the research presented in the article, the methods of comparative analysis were used to compare the indices of sustainable development

of post-socialist countries in the UN global ranking of sustainable development; graphical method - for visualization growth rate of SDIs; generalization method - to form the conclusions of the study.

Results. A large number of political, economic, financial, environmental, technological, informational, ideological, demographic and other problems that marked the end of the second millennium, identified the need in front of the world community to develop a concept of sustainable long-term development. Well-known scientists and politicians are assessing the modern market society and its consequences for the whole world more and more critically, which is proclaimed with great concern all over the world. This is due to the awareness of resource and ecological limits of growth, the destruction of intellectual values, the degradation of the environment and a human being. In view of this, it becomes obvious that a society based on mercantile values has no future. A situation has arisen in which the survival of mankind dictates the need to unite all national interests, national resource potentials into a global one. These problems were announced at an international forum in 1992 in Rio de Janeiro and confirmed at the Sustainable Development of World Civilization Summit in Johannesburg in 2002. In this regard, the issue naturally arose about the peculiarities of the current stage of economic development, its nature, factors and relationship with the development of rapidly globalizing world economy.

The concept essence of sustainable development. The concept of sustainable development has become a logical transition from the greening of scientific knowledge and socioeconomic development, which began to develop actively in the 1970s. To study globalization and its consequences, such international non-governmental organizations for studying global processes on the earth were established as the International Federation of Advanced Research Institutes (IFARI), the Club of Rome (with its famous report "Growth Limits"), the International Institute for Systems Analysis, in the USSR – All-Union Institute for Systems Research, in Ukraine the issues of globalization are dealt with by the National Institute for Strategic Studies, the Institute of Economics and Forecasting of the National Academy of Sciences of Ukraine, the Institute of Applied Systems Analysis of NTU of Ukraine "KPI" and others.

In 1972, the United Nations Conference on the Environment was held in Stockholm and the United Nations Environment Program (UNEP) was established, marking the beginning of international action at the state level to address environmental issues that have hampered socioeconomic development. In the 1980s, the concept of eco-development, development without destruction appeared, and the need for sustainable development of ecosystems was emphasized. The first mention of sustainable development appeared in the World Conservation Strategy (WCS), which was adopted in 1980. The second edition of the WCS, entitled "Caring for Planet Earth – A Strategy for Sustainable Life" published in 1991, emphasized that development should be based on the conservation of wildlife, the protection of the structure, functions and diversity of the Earth's natural systems on which species depend. To do this, it is necessary to maintain life support systems, preserve biodiversity and ensure the sustainable use of renewable resources.

The term "Sustainable Development", the literal translation of which, taking into account the context, means "viable development", and its expanded interpretation means a comprehensively balanced development.

The concept essence of sustainable development at the initial stage (1992) was defined as meeting the vital needs of the current generation while maintaining a similar opportunity for future generations. The emphasis was on the environmental component. The theory of sustainable development is an alternative to the paradigm of economic growth, which ignores the environmental danger of development according to the extensive model [2].

World Bank experts have identified sustainable development as a process of managing a set (portfolio) of assets aimed at preserving and expanding the opportunities that humanity has. Assets in this definition include not only traditionally calculated physical capital, but also natural and human capital. In order to be sustainable, development must provide growth (at least not a decrease) in time of all these assets (and not just predict economic growth) [3].

The concept of human development became the basis of the first Report on World Human Development in 1990. It interprets human development as a goal and criterion of social progress, as a means of increasing income that acquires value only with a real impact on people's well-being. Human development is defined as a process of human capabilities growth – a person must live a long life, not get sick, be educated, enjoy political and economic freedoms, public respect for the individual [4, p. 8; 5, p.10].

In 1994, in the UN report "On Human Development", the concept of sustainable development was supplemented by a humanistic component, which became the main one. In the new modification of the concept, sustainable development was defined not only as one that generates economic growth, but also as one that fairly distributes its results, reproduces the environment to a greater extent than destroys it, increases people's opportunities, not impoverishes them" [6, p. 6-7].

The "Agenda for the XXI Century" (Chapter 1 of the Preamble) states: "Humanity is experiencing a crucial moment in its history. We face the challenge of perpetuating disparities both between and within countries, exacerbating poverty, hunger, deteriorating health and illiteracy, and continuing deterioration of the ecosystems on which our well-being depends. However, an integrated approach to environmental and development issues, paying more attention to them, will help meet basic needs, improve the living standards of the entire population, promote more effective protection and rational use of ecosystems and ensure a safer and more prosperous future. Individual countries are not able to achieve this alone, but we can achieve this together – through a global partnership for sustainable development" [5].

A global partnership to achieve global goals. Thus, we can conclude that the concept of sustainable development emerged as a result of combining three main points of view: environmental, economic and social.

The economic component in the concept of sustainable development is based on the theory of the maximum flow of total income of Hicks-Lindahl, which can be produced provided that the total capital is preserved, which is the source of this income. This concept provides for the optimal use of limited resources and the use of

environmental – natural, energy and material-saving technologies, including in the field of extraction and processing of raw materials, creation of environmentally friendly products, as well as minimization, processing and disposal of waste. However, when deciding what capital should be stored and to what extent, different types of capital are interchangeable, as well as when valuing these assets, especially environmental resources, there are problems as for correct interpretation and accounting.

The social component of sustainable development is human-centered and aims at preserving the stability of social and cultural systems, including reducing the number of destructive conflicts between people. An important aspect of this approach is the equitable distribution of wealth, as well as the preservation of cultural capital and diversity on a global scale, the fuller use of sustainable development practices that exist in non-dominant cultures. To achieve sustainable development, modern society needs to create a more effective decision-making system that takes into account historical experience and is based on pluralism; to strive for justice not only within one generation, but also between different generations; to intensify the processes that form the sphere of human life, to facilitate the adoption and implementation of decisions, to control their implementation.

From an ecological point of view, sustainable development must ensure the integrity of biological and physical natural systems, the viability of ecosystems, on which the global stability of the entire biosphere depends. The concept of "natural systems" and habitats is widely understood, including as a man-made environment, such as cities. Particular attention is paid to maintaining the ability to self-reproduction and dynamic adaptation of such systems to change, rather than maintaining them in some "ideal" static state. Degradation of natural resources, environmental pollution and loss of biological diversity reduce the ability of ecological systems to self-reproduce.

Coordinating the various components (environmental, social, economic) and confirming them with specific measures that are a means of achieving sustainable development is a task of extreme complexity, as all three elements of sustainable development must be considered in a balanced way.

As for the very concept of "sustainable development", it should be noted that despite the existence of a large number of interpretations, none of them has become commonplace. But in any case, sustainable development means development within the economic (ecological) capacity of the natural environment, which does not make irreversible changes in nature and does not pose a threat to the long existence of man as a species of *homo sapiens* [7]. Thus, this category combines the well-being of man and nature. We should note that the term "sustainable development" is associated with the concepts of development – balanced, stable, constant. However, the latter is the least adequate to the concept essence of "sustainable development".

The paradigm of a sustainable development society differs significantly from the paradigm of an industrial (economic) society, which is based on the priority of economic growth through the widespread use of industrial methods of production, including in agriculture. In an industrial society there is a concentration of production and population, urbanization, the formation of a system of values focused on

efficiency, rationality regardless of the natural environment. Social and economic progress in industrial society occurs along the lines of increasing the production of material goods and obtaining economic benefits at any cost. Under such conditions, environmental protection is subject to economic development, which makes it fundamentally impossible to effectively protect the environment [8].

However, the industrial society of developed countries has provided its population with a high level of material well-being and quality of services, although it used an incredible amount of natural resources and destroyed the natural environment so that there is a real threat to human survival as a species. Under the Soviet model of industrial society, the material basis of a high quality of life was not created, although resources were used not less, but even more per unit of GDP, compared to the West.

According to the structure of priorities, post-industrial society (post-economic) is almost indistinguishable from industrial (economic), but economic growth is achieved on the basis of new technologies, there is a transition from an economy based on the production of goods to a service one [8]. The production of services and information plays a dominant role. A new socially active class is being formed – the intellectual elite and technocrats, who control material production and the process of creating high technologies through the information used in the production of the final product. Knowledge and information become the leading productive force, and such a society is called informational. If the post-industrial (informational) society in economic growth perceives the limitations of the ecological imperative, it acquires the characteristics of a society of sustainable ecologically safe development, based on an organic trinitarian combination of economic, social and environmental spheres, with the latter playing a decisive role.

Given the new modification of the concept of sustainable development, which is provided in [6, p. 6-7] and based on the proposed definition of development [8, p. 7], it is proposed to supplement the definition of sustainable development and set it out as following: sustainable development is a process that involves harmonious, natural, purposeful changes in matter and consciousness that generate economic growth and ensure fair distribution of its results, environmental reproduction and economical consumption all kinds of resources, their preservation for future generations for the harmonious development of all members of society.

In other words, sustainable development must ensure the harmonization and combination of social, economic and environmental goals, their implementation in a single sociology-ecological-economic system. The imbalance between individual subsystems is evidence of the inconsistency of the development of a particular object (country, region, industry, enterprise) of the concept of sustainable development. The result of economic development (growth) in the sociology-ecological-economic system is the provision not only of material but also of the whole complex of human needs, including spiritual, social, ecological and others.

Recently, the problem of sustainable development is of concern to many scientists and politicians around the world. Russian scientist E. Charmanski (Member of the Central Council of the Russian Ecological Party "Greens", Director of Programs of "Clean Waters of Russia" of the Russian Ecological Congress and National nature park

"Ecological Center"), given the social, environmental and economic needs and the possibility of transition to a new environmental socioeconomic paradigm of development, noted that this is prompted by a number of circumstances [9]. First, the history of the origin and evolution of the environmental factor that determines the need to move to a new paradigm of development. The need to block a real global ecological catastrophe transforms the problem of regulating the rights to develop the economic capacity of the territory into a universal task of returning to the permissible level of consumption of ecological potential of the biosphere and distribution among states not only rights to use it, but also corresponding obligations. The implementation of this task is inextricably linked with virtually all areas of economic activity, all areas of interaction with nature around the perimeter of consumption of its resources from development, processing and production to its use and processing of waste, with social and economic factors. Secondly, the development of globalism and the social factor. In the modern world there are two main types of interactions: the first is the interaction between all mankind and the Earth's biosphere; and the second is interaction within the world community.

In the early 1990s Dennis and Donella Meadows [8] proved that the traditional world with the current rate of economic growth and population, with its socioeconomic systems due to limited natural resources will collapse. This is confirmed by the results of research presented in the work of A.P. Fedotov "Globalism: the beginning of the modern world science" [9], which states that to prevent the collapse that may occur, it is urgent to base the development of strategy of individual countries and the world as a whole to lay scientific and practical principles of self-preservation and intelligent evolution, the embodiment of which is a new model of the world, consisting of 3 elements: the biosphere, the world as a whole and the individual country. The interaction of the model elements is described by a new system of social quantitative parameters of the world: the anthropogenic loading index; sustainability index; rent number; index of socioeconomic disharmony [9, 10].

The indices dynamics of sustainable development of the group of countries of the post-socialist space (the PPC group) and the progress in improving the integrated indicator are given in Table 1. As the analysis of Table 1 data shows, almost all countries of the PPC group during the observation period (from 2000 to 2021) have made progress in changing the indices of sustainable development, as evidenced by the data of group 11 in the Table 1, because the values of all base growth rates exceed 1.0. At the same time, it should be noted that the greatest results were achieved by Estonia, which moved from the 6th place among the countries of this group to the 1st and in the global ranking took the 10th place among 165 countries studied (base growth rate was 1.12). As for Ukraine, in 2021 it took the 36th place, due to positive results in achieving 10 of 17 goals that determine the sustainable development of the country in the economic, social and environmental spheres [13], without deteriorating its position in any of the basic goals of sustainable development in the economic, social and environmental spheres. It should be noted that Ukraine has shown the greatest progress in achieving the goal of "universal eradication of poverty in all its forms".

Table 1. Indices of sustainable development of post-socialist countries in the global ranking of sustainable development of the UN

Country	Place in the PPC group, 2020	Dynamics of Sustainable Development Indices (SDIs) of countries, %						Place in 2021		Growth rate of SDIs, 2021/2000
		Years						in the PPC group	in the global ranking	
		2000	2004	2008	2012	2016	2021			
Estonia	6	72,58	75,59	77,19	78,74	80,87	81,60	1	10	1,12
The Czech Republic	1	75,14	76,43	77,66	79,07	80,65	81,26	2	12	1,08
Slovakia	3	73,38	75,03	75,94	77,27	78,74	79,43	4	19	1,08
Hungary	1	75,14	76,41	77,07	76,95	78,54	78,65	6	25	1,05
Latvia	5	72,78	74,46	75,24	77,05	78,35	79,15	5	22	1,09
Poland	2	74,35	75,11	76,09	77,36	79,72	80,22	3	15	1,08
Bulgaria	1	66,66	68,54	71,92	73,00	72,34	73,81	9	45	1,11
Moldova	10	67,43	69,51	70,13	71,40	72,29	73,53	11	48	1,09
Ukraine	7	71,47	71,75	71,96	73,22	73,67	75,51	8	36	1,06
Lithuania	8	71,45	73,23	73,95	75,02	76,26	76,70	7	31	1,07
Belarus	4	73,26	74,86	75,55	75,87	77,47	78,65	6	24	1,07
Russia	9	67,89	67,57	68,51	69,63	72,10	73,75	10	46	1,09

Source: summarized and calculated by the authors according to [11, 12]

In addition, according to data [11, 12], Ukraine is ahead of Greece (37th place), Israel (38th place), Luxembourg (42nd place), Russia (46th place). It should be noted that the progress made by Ukraine is the result of the systematic work that was carried out by the country during 2016-2017, when a large-scale and comprehensive adaptation process of the Sustainable development goals took place, considering the Ukrainian context [12]. At the same time, each global goal was revised taking into account the specifics of national development. The result of this work is the national system, which consists of 86 national development objectives. National tasks, indicators for monitoring the implementation of tasks and targets to be achieved by 2030 are reflected in the National Report “Sustainable development goals of Ukraine” [13]. The created national system of tasks and indicators of the Sustainable development goals provides a solid basis for further comprehensive monitoring of the results of the country’s sustainable development. In general, 17 goals and 86 national tasks have been incorporated in 145 normative legal acts of the Government, 1052 tasks and 3465 measures enshrined in these acts are directed to implement the goals and objectives [12].

At the present stage, for many countries, the issue of finding ways and mechanisms to manage the country’s sustainable development, bringing it to a new higher level of existence is especially acute.

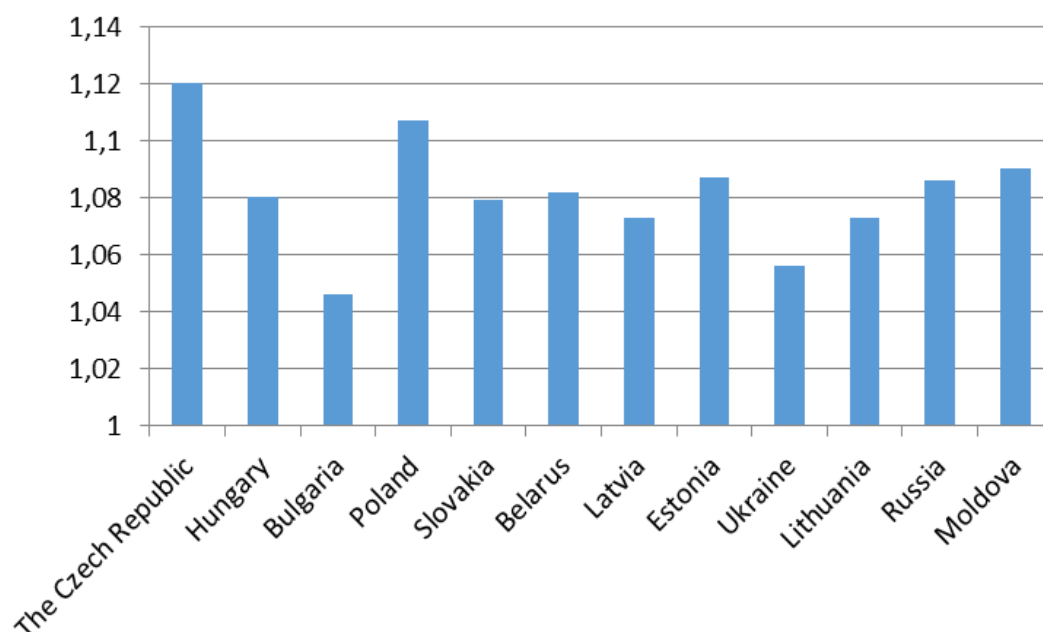


Figure 1. Growth rate of SDIs, 2021/2000

Source: summarized and calculated by the authors according to [12]

Discussion. Thus, the new ecological-sociology-economic paradigm on the basis of sustainable development is to use existing opportunities and take into account the state of environmental, social and economic factors. In view of the above, the requirements for the economy of the transition to sustainable development are:

- dematerialization of development, which means the optimization of human needs (including changes in the style of human consumption) and their satisfaction with minimal costs of natural resources by increasing the efficiency of resource use;
- global and national solidarity and a consistent increase in the level of justice in the distribution of goods and resources;
- severe territorial limitations of economic activity;
- significant changes in society, in the factors of production, in economic policy, ensuring the innovative nature of development. The new (informational) revolution must bring changes due to new known and still unknown technological achievements not only in technology but also in wildlife and energy on the basis of amateurism and self-regulation and actual reproduction processes, fundamental changes in labour productivity;
- the high-tech sector must ensure positive changes in the scale of the whole economic organism and serve as a guarantee of the stability of trends in general economic development and increase productivity.

However, such changes are not yet happening (or are not happening on a large enough scale and too slowly), and information technologies, which are expected to increase productivity, according to observations, do not yet provide answers about the positivism of the necessary changes. At the same time, the system of relations, first of all, economic, which developed and is being developed in the conditions of industrial revolution and its consecutive transformation according to technological changes, came to a standstill as development reached such level of anthropogenic loading on the

nature that there was a threat of ecological catastrophe, and globalization as an inevitable stage of the modern process of modernization of society, economy, state, which should provide the opportunity to ensure social progress in recent times, moved from the virtual direction of development to the real world of events and also became threatening.

Conclusions. Thus, the interests of survival and development, the imperatives of the future global economy require the search for new forms of economic processes focused on dematerialization of production, its intellectualization, digitalization, the use of genetic engineering and biotechnology, the use of extraterrestrial energy. A special role in the implementation of ecological, socioeconomic paradigm of development is given to the support of the public, and, above all, scientific one.

From the above we can conclude:

- development, at the center of which there is only material production, is increasingly questioned by both foreign and domestic scientists. Most of them increasingly advocate the need to reconsider the entire paradigm of world economic development, the transition from the ideology of accumulation of material wealth on earth to the ideology of "reasonable sufficiency", from the ideology of competition to the ideology of mutual assistance;

- it is unlikely to be legitimate to raise the issue of stimulating the highest possible rates of economic growth without taking into account its impact on the environment, assessing the impact on income and consumption of the entire population, analysis of environmental and social consequences. The feedback mechanism identifies environmental and social factors and constraints that affect economic growth and determine the nature of economic development. For a long time, the rate characteristics of economic growth in industrialized countries have been dominant. However, the idea of "growth for growth" came into conflict with the laws of ecosystem development and led to the constant depletion of natural resources, environmental pollution, the death of entire animal populations. A new approach to understanding the nature, sources, limits and factors of economic growth is designed to resolve the contradictions between production and consumption at a qualitatively new level. The negative environmental and social consequences of the boundless growth of production and consumption have forced scientists to shift the emphasis towards the growth quality ;

- one of the main areas of solving problems that occur in the environmental and economic sphere is the formation of a balanced system of nature management and greening of technologies in industry, energy, construction, agriculture, transport;

- in order to achieve global sustainable development, humanity must create such social systems and social standards that would help maintain the necessary level of justice in the distribution of wealth, to which countries are now approaching.

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