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Sustainable development management seen through the prism of natural capital preservation imperative

Menadžment održivog razvoja sagledavan kroz prizmu imperativa očuvanja prirodnog kapitala

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DOI: https://doi.org/10.5937/bizinfo2201041K UDC/ UDK: 502.131.1:347.471.033 and carrying capacity of the environment). The answer to it is directly related to the concept of weak and strong sustainability. The concept of poor sustainability allows substitutability between produced and natural capital, provided that the total amount of available capital does not decrease. On the contrary, the concept of strong sustainability implies a special observation of produced and natural capital. It practically eliminates the possibility of replacing one form of capital with another in the production process and from the point of view of the development economy is the only acceptable option in the long run. If unlimited substitution between natural and produced capital is allowed, then natural resources will eventually be depleted due to the creation of produced capital. Keywords: economic development, sustainable development, natural capital, poor sustainability, strong sustainability	Rewiev paper/ Pregledni rad Received/ Rukopis je primljen: 25 February, 2022 Accepted/ Prihvaćen: 24 March, 2022 DOI: https://doi.org/10.5937/bizinfo2201041K UDC/ UDK: 502.131.1:347.471.033	After explaining the content coverage and elementary explanation of the basic dimensions of the paradigm of sustainable development, the concept of sustainability is considered in the light of preserving the total amount of capital in the production process, assuming no technological change and population growth. The research task set in this way brought to the fore the extremely complex question of the substitutability of produced and natural capital (stocks of natural resources and carrying capacity of the environment). The answer to it is directly related to the concept of weak and strong sustainability. The concept of poor sustainability allows substitutability between produced and natural capital, provided that the total amount of available capital does not decrease. On the contrary, the concept of strong sustainability implies a special observation of produced and natural capital. It practically eliminates the possibility of replacing one form of capital with another in the production process and from the point of view of the development economy is the only acceptable option in the long run. If unlimited substitution between natural and produced capital is allowed, then natural resources will eventually be depleted due to the creation of produced capital. Keywords: economic development, sustainable development, natural capital, poor sustainability, strong sustainability		

Sažetak

U radu se nakon objašnjenja sadržajne obuhvatnosti i elementarne eksplikacije osnovnih dimenzija paradigme održivog razvoja, koncept održivosti sagledava u svetlu očuvanja ukupne količine kapitala u procesu proizvodnje, pretpostavljajući da nema tehnoloških promena i rasta stanovništva. Ovako postavljen istraživački zadatak u prvi plan je stavio krajnje složeno pitanje supstitabilnost proizvedenog i prirodnog kapitala (zaliha prirodnih resursa i nosivosti životne sredine). Odgovor na njega je neposredno povezan sa konceptom slabe i jake održivosti. Koncept slabe održivosti dozvoljava zamenljivost između proizvedenog i prirodnog kapitala, pod uslovom da se ukupna količina raspoložovog kapitala ne smanjuje. Suprotno, koncept jake održivosti podrazumeva posebno posmatranje proizvedenog i prirodnog kapitala. Isti praktično eliminiše mogućnosti zamene jednog oblika kapitala drugim u procesu proizvodnje i sa stanovišta ekonomije razvoja je dugoročno jedino prihvatljiva opcija. Ako je dozvoljena neograničena supstitucija između prirodnog i proizvedenog kapitala, onda će se prirodni resursi u konačnom skoru iscrpeti usled stvaranja proizvedenog kapitala.

Ključne reči: ekonomski razvoj, održivi razvoj, prirodni kapital, slaba održivost, jaka održivost

1. Introduction

At the beginning of the 1960s, the scientific and professional public was of the opinion that it is necessary to reconsider the current theories of economic development in terms of respecting the increasingly evident fact that unlimited economic development is accompanied by increasing negative consequences for depletion of natural resources and excessive environmental pollution (Saks, 2014). Partly, in response to the changed attitudes of the professional public

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on this issue, the Commission on Environment and Development was formed in 1983 by the United Nations Assembly. In 1987, this Commission submitted a report on important issues of global economic growth and development that threatened the global ecological system and caused serious damage to it, entitled Our Common Future. Sustainable development is defined in the report as development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs (Elliott, 2012; Pokrajac, 2009). This document is known to the general public as the Brundtland Report. Thus, the initial idea of the concept of sustainable development is to find an acceptable response to the increasingly evident destructive consequences of human activities on the environment. Over the past four decades, the in addition to many wanderings concept. and misunderstandings, has become an integral component of almost all areas of human activity. In essence, sustainable development is a process of change in the framework of environmental protection, exploitation of resources, direction of investments, technological development and institution building in mutual harmony (Jovanović-Gavrilović, 2013).

In the years since the end of the previous century, the sustainability imperative has become one of the unavoidable dimensions of economic and social development strategies of almost all market economies in the world (Harris, & Roach, 2018). The approach to sustainable development puts man at the center of attention and the satisfaction of his present and future needs. Although it still seems new and fresh, the concept of sustainable development, despite its sustainability, is still extremely reluctant to conquer new horizons.

In the light of previously stated findings, the subject of this paper is the theoretical explication of economic growth constraints due to excessive use of natural capital (environment and natural resources. This issue seems very relevant due to the fact that in recent decades there has been a continuous decrease in the share of natural capital due to the increased share of produced capital in the total amount of capital in the process of global production (Figure 1).



Figure 1. Produced and natural capital as substitutes

Source: Anderson, D. (2014). *Environmental Economics and Natural Resource Management*, London & New York: Routledge, p. 189.

Starting from the position that for the production process, in addition to the produced, natural capital is also necessary, two research hypotheses have been set: H1: In the long run, natural capital is a limiting factor in global economic growth.

H2: The state of the environment, i.e., the efficiency of environmental policies is directly correlated with the level of GDP per capita of individual countries.

The composition of the paper is harmonized with the defined subject of the research and the set research hypothesis, which is explained in the first section of the paper. The second section of the paper gives a brief description of the concept of sustainable development with an emphasis on its three basic dimensions (environmental, economic and social). The third part discusses the substitutability of production and natural capital in the production process and the related concepts of weak and strong sustainability. The fourth section talks about the management of the environment and natural resources, which must have a holistic character. Finally, the fifth section of the paper examines the relationship between 2020 EPI Score and GDP per capita for selected countries in 2020 (the top and last ten countries, and Serbia in 2020).

2. Basic dimensions of the concept of sustainable development

The concept of sustainability is widely accepted today. The long-term sustainable development implies sustained economic growth, technological advancement, efficient resource management and increasing quality of life in the final instance. (Jurjević et al, 2019, 45). The reasons for this lie in the possible answers to the question why economic activity must be sustainable. In the first place, there are strong moral reasons for today's generation to leave their descendants no less chance for development than they have now. This means that the planet Earth, with its potential, must not be degraded by humans. Such reasoning is based on Rawls's theory of justice, which emphasizes the fundamental principle of moral justice, contained in the equal right of every human being to the broadest fundamental freedom (Rawls, 1971). As the dominant dimension of modern development, sustainability means economic growth, but growth that brings new quality of the environment, sustainable use of natural and energy resources, raising the quality of life, and improving human development. The concept of sustainable development naturally imposes itself as a new development paradigm which, with an integrative approach, tries to offer a solution to the problems of the modern age. At the same time, this concept redefines the standard framework of economic theory and offers a much different and more complex view of economic growth and development (Vračević, 2019, p. 10).

The economy and the environment are closely linked by the principle of material balance. Higher production volumes result in larger amounts of waste. If the environment has to accept waste, its possibilities of waste absorption are limited. This, therefore, it becomes a constraint on the economy. Increasing economic growth increases the volume of waste in relation to the limited capacity of the natural environment to absorb that waste. When this capacity is increased (by force), great damage can be done to the environment and reduce human well-being. The first constraint on economic growth can be called the constraint on economic growth caused by the capacity of the environment to assimilate waste.

The second limitation of economic growth is conditioned by the availability of not only non-renewable but also renewable natural resources. Namely, if a certain renewable resource is used reasonably, a part of that resource can be taken every year and allowed to be renewed. If renewable resources are used in a sustainable way, there does not have to be a constraint on economic growth due to renewable resources. But this cannot be said for non-renewable resources because, by definition, there are finite reserves of those resources. Therefore, if economic growth means the use of increasing amounts of resources, then there is a limit to economic growth determined by the available reserves of natural resources. This is called the limitation of economic growth which is conditioned by the availability of resources.

Environmental constraints on economic growth are realistic and justified. The fact is that the lifespan of various natural resources has been extended in various ways so far, and many pollutants have been prevented from being emitted into the environment. Therefore, it is necessary to manage economic growth by taking precautionary measures. It is necessary to redefine the rules of the economic game in order to replace wasteful consumption and pollution with savings and conservation of natural resources. No reasonable person can doubt the need for changes in economic development. Therefore, it remains possible to support economic growth and development, as well as human well-being, with fair and equal measures, while respecting the necessary environmental laws. Therefore, the right of the current generation to use resources and the environment must not jeopardize the same right of future generations. Another group of reasons for sustainable development is environmental. Namely, if nature represents a value in itself, that is, if the preservation of biological diversity or reserves of natural resources has justifications in the attitude that man is only a part of nature, it follows that man has no right to change it irreversibly. Therefore, types of economic activity that disrupt the diversity of the living world or the wealth of resources are not acceptable. In fact, this group of reasons can also be reduced to moral reasons, noting that the current relations with future generations are not exclusively emphasized here, but that the current generation's attitude towards nature as a whole is primarily in mind (Cvetanović, & Andrejević Panić, 2021, pp. 120-121).

The three basic dimensions of sustainable development are environmental, economic and social (Despotović et al., 2016). By integrating the economic and environmental dimensions, we get another goal of sustainability: the implementation of the plan of economic growth and development with consistent respect for environmental principles (Figure 2).

Ecological sustainability is about the resilience or sustainability of an ecosystem. It is the requirement that the most significant factors of environmental disturbance, i.e., environmental change factors be kept under control. The key factors of ecological changes are: destruction of the biosphere, i.e., pollution of air, water and soil; resource constraints; demographic expansion; overpopulation, i.e., the formation of megalopolises and metropolitan regions; nutrition problem. The most frequently mentioned goals of ecological sustainability are the preservation of ecosystems and natural habitats of the animal world, reduction or elimination of pollution caused by human factors, etc. Today, the focus is also on measures to control the greenhouse effect.

Figure 2. Limitations of economic activity to the natural environment



Source: Authors

The economic aspect of sustainable development represents a new development paradigm, qualitatively different from all previous models of economic development. This development paradigm does not neglect the importance of the intensity of economic growth, but also emphasizes the importance of its quality. In essence, this concept means an attempt to find an answer to the question of underdevelopment while solving the problem of growing devastation of natural resources, and especially environmental degradation.

The social dimension of the concept of sustainable development refers to improving the well-being of people, a simpler approach to meeting basic health and education services, meeting minimum standards of protection and respect for human rights. It also refers to the development of different cultures, equality, pluralism and effective participation in decision-making. The question of equality, i.e. distribution of generated income and wealth is also one of the key aspects of the social dimension of sustainable development. The idea of a society of equality is understandably not of recent date, but its incorporation into the concept of sustainability has regained momentum. It also mentions respect for human and civil rights, including the right to participate in political life, the right to use the health and education systems, and so on. (Despotović et al., 2019).

The main problem in the application of this concept stems from the fact that the proclaimed principles and key categories of the sustainability paradigm are not far from the required operational level (Salas-Zapata et al, 2013). In other words, it was necessary to make them real in a way that expresses the requirements and contents of a specific historical-geographical spaces. This is partly due to the multilayered, i.e., multidimensional nature of the phenomenon of sustainability, or the fact that there are several meanings that are, as a rule, in a conflicting relationship.

3. The substitutability of productive and natural capital

Poor sustainability takes as a starting point a variable of economic development, the dynamics of which must not be diminished for future generations. As long as the stocks of natural capital do not change, unchanged consumption of energy from non-renewable resources in the world economy is possible. At the same time, natural capital stocks could be kept constant by reinvesting "Hotelling rent" from nonrenewable natural resources into produced capital (Hotelling, 1931). To illustrate, Nobel laureate Robert Solow points out that sustainability does not imply our obligation to leave the world as it is. What should be preserved for future generations are opportunities to ensure a dignified life. The fact that the possibility of substitution exists in production and consumption implicitly means that we are obliged to leave our descendants a general ability to create prosperity, and not some special thing or specific resource. There is a presumption of the possibility of replacing the natural with other forms of capital (Hartwick, 1977; Solow, 1986; 1993).

The prevailing neoclassical concept of economic growth and development not only neglected the relationship between the economy, on the one hand, and the environment and natural resources, on the other, but also jeopardized the possibility of reducing poverty and increasing the quality of life of many people. Therefore, in the field of science, including economics, for the last forty years there have been "searches" for different, alternative theoretical concepts as well as development models that will enable less pressure of the economic system on the environment and contribute to solving complex, global environmental problems.

According to neoclassical school economists, unlimited substitution between natural and produced capital is allowed because technological advances will provide appropriate substitutes when natural capital becomes a scarce factor of production. According to their conclusions, sustainability means the possibility to keep the current stocks of total production capital for the needs of future generations, where the relationship between natural and produced capital is not important (Karaman Aksentijević, et al, 2019). According to the concept of poor sustainability, the economy is sustainable even in the case when natural capital is degraded, provided that the company creates enough produced capital that will compensate for the loss of the value of natural capital. (Ayers et al, 1988). Proponents of the concept of strong sustainability believe that the next generation must inherit a stock of natural capital no less than the stock that the current generation inherited from the previous generation (Nedić et al, 2017). Emphasizing the imperative of preserving natural capital, rather than total capital, can ensure effective protection of natural resources that are in danger of economic progress. This approach emphasizes the importance of maintaining the structure and function of the ecosystem, i.e.it takes into account its integrity. It respects the precautionary principle but, unlike respecting the principle of safe minimum standards, it considers that natural capital must remain constant. This is even in the casewhere the expected benefits from giving up are high, since the loss of natural capital is unacceptable.

Strong sustainability rejects large swaps between natural and produced capital and argues that these forms of capital must be maintained separately over time. Its shortest starting point is the complementarity of produced and natural capital, and not their substitutability. Substitutability is possible only within certain forms of capital. In order to realize the principle of strong sustainability, some authors have translated the rule of constant size of natural capital into a set of environmental criteria (safe minimum standards of sustainability) defined by the rate of regeneration of renewable resources and assimilation capacity. Strong sustainability animates the ecological position defined as "eco-centrism of society" and follows the model of "deep green economy" which is concentrated on environmental protection and conservation of natural resources.

Previously explicit theoretical considerations regarding the substitutability of produced and natural capital allow us to conclude that in the long run, natural capital is a limiting factor in global economic growth. This confirmed the research hypothesis H1.

4. Holistic approach to environmental and natural resource management

In the last forty years, in the literature on the topic of economics and management of natural resources and the environment, on the one hand, it is pointed out that production activities at the global level require increasing use of natural resources, while on the other hand, they emit more and more environmental pollution. Therefore, it was necessary to identify opportunities and ways to manage future global development on environmental principles, without diminishing further interests in economic growth and development (Harris, & Roach, 2018). The application of a systematic and holistic approach in the protection and restoration of the environment, as well as the sustainable use of natural resources implies a kind of human concern for the protection and sustainability of ecosystems, rather than a sharp focus on productivity and competitiveness of natural resources (Rowe, 1992).

In a broader sense, the bearers of environmental management and natural resources are states, international organizations, private and public institutions, i.e., individuals, with different levels of management structures at different levels of activity (international, national, local, etc.). The current strategy of approaching the problems of environment and natural resources emphasizes the need to redefine economic development, since it is completely clear that natural resources and the environment have become limiting factors for development. In order to successfully solve development problems, it was necessary to include environmental protection goals in economic and entrepreneurial development strategies and policies. At the same time, practice shows that the economy is largely defensive towards environmental problems or is involved in environmental protection only to the extent required by law (so-called reactive policy).

Interest in environmental problems is stimulated by knowledge about the unfavorable impact of economic growth on its condition, but also by the fear of the lack of

basic natural resources on which modern production rests. The ecological dimension requires that natural resources be used in such a way as to prevent negative impacts on them in the long run. This should protect natural resources and maintain the genetic potential of plant and animal crops. Problems in the interaction of man and nature have manifested themselves through the depletion of nonrenewable natural resources, climate change and global warming, air, water and soil pollution, endangering ecosystems and reducing biodiversity. It is necessary to maintain ecosystems in a functional state, which indicates the need for effective nature protection. Any behavior that reduces the balance of the ecosystem as a whole is considered unsustainable. The problem is that finding out whether the system is balanced or not can only come after the disorder. The success of the realization of this development policy is reflected primarily in the avoidance of critical situations, which jeopardize the survival of life.

Depletion of natural resources occurs due to their excessive exploitation. It is necessary to protect the land from erosion, inadequate use and pollution, i.e., to manage the land in an environmentally sustainable way. In addition, it is necessary to protect forests and forest land and preserve the traditional appearance of rural areas. Cooperation of people with nature should result in the preservation of special natural values of rural areas and stopping biological degradation and reduction of biodiversity (Raičević, et al., 2021). Depletion of natural resources occurs due to their excessive exploitation. The ecological dimension is the basis for the conservation and enhancement of the physical and biological local resource base of the ecosystem.

An important lever in the current management of the environment and natural resources is the model of the circular economy. In short, the circular economy implies the functioning of production systems whose goal is to maximize the use of resources, obtained raw materials and by-products in circular production. The model also minimizes waste production. Contrary to the model of traditional production and the linear model on which it is based, which implies the production, use and disposal of products after use, the basis of the circular economy is reuse, not their disposal. In other words, in the circular economy model, waste is the raw material that comes from the recycling system. Thus, the circular economy model saves natural resources, reduces the consumption of raw materials and energy per unit of production, and emphasizes the use of renewable energy sources (Table 1).

 Table 1. The characteristics of circular and linear

economics					
Linear economy	Circular economy				
Environmental Protection	Pollutes the environment				
Saves natural resources	Significant consumption of natural resources				
It has a simulated effect on economic growth	Endangers human health				

Source: Cvetanović, S., & Andrejević Panić, A. (2021). Changes in focus in the perception of economic development, Sremska Kamenica: Educons University, p. 137.

5. The relationship between 2020 EPI Score and GDP per capita for selected countries in 2020

An important tool that supports efforts to meet the goals of sustainable development and to move society towards a sustainable future is the composite indicator The Environmental Performance Index (EPI). In 2018 and 2020, EPI ranked 180 countries in terms of environmental health and ecosystem vitality. These indicators illustrate how close countries are to established environmental policy goals. The EPI provides practical guidance for countries seeking to move towards a sustainable future.

EPI indicators help identify problems, set goals, track trends, understand results, and identify best practices in environmental policy and maintaining ecosystem vitality. Evidence-based data and analysis can help government officials refine their policy agendas, facilitate communication with key stakeholders, and maximize the return on investment in the environment. Table 2 shows the data related to Rank, EPI score and ten-year change of EPI Top ten and last ten countries in 2020, GDP [PPP 2011\$ billions] and GDP [PPP 2011\$ billions]. The table also shows data on these values for the Republic of Serbia in 2020.

Table 2. Rank score EPI, 10 - year chgange, GDP and GDP per capita of the top ten and last ten countries in 2020

Rank	Top ten (last) countries	EPI score	10 - year cgange	GDP [PPP 2011\$ billions]	GDP per capita \$
1	Denmark	82.5	7.3	280.7	48,419.40
2	Luxsembourg	82.3	11.6	58.8	96,792.60
3	Switzerland	81.5	8.6	505.2	59,317.30
4	United Kingdom	81.3	9	2,694.30	40,501.70
5	France	80	5.8	2,649.70	39,533.60
6	Austria	79.6	5.4	409.3	46,260.40
7	Finland	78.9	6	232.1	42,060.80
8	Sweden	78.7	5.3	485.9	47,717.70
9	Norway	77.7	7.6	347.5	65,389.20
10	Germany	77.2	1.2	3,809.40	45,936.20
45	Serbia	55.2	7	112.1	16,049.30
170	Haiti	27.4	2	18.4	1,656.30
172	Chad	26.7	-0.9	27	1,746.50
172	Solomon Islands	26.7	-2	1.4	2,149.80
174	Madagascar	26.5	-6.6	44.1	1,678.20
175	Guinea	26.4	-4.2	27.6	2,222.60
176	Cote d'Ivoire	25.8	-8.5	93.6	3,733.10
177	Sierra Leone	25.7	0.7	10.9	1,421.50
178	Afghanistan	25.5	5.7	64.5	1,734.70
179	Myanmar	25.1	-1.2	318.1	5,922.00
180	Liberia	22.6	-3.7	5.6	1,161.20

Source: Wendling, Z. A., Emerson, J. W., de Sherbinin, A., & Esty, D. C. (2020). 2020 Environmental Performance Index.

The EPI index focuses on two key thematic areas: environmental health and ecosystem vitality. Six indicators related to air quality, water quality and the presence of heavy metals are used to assess environmental health, and 18 indicators related to seven important areas are used to assess the vitality of ecosystems: biodiversity and habitats, forests, fisheries, climate and energy, air pollution, water resources and agriculture (EPI 2018). According to a survey conducted in 2020 for 180 countries around the world, it can be concluded that the state of the environment, i.e., the efficiency of environmental policies is the best in highly developed countries, while underdeveloped countries are at the bottom of the scale. The relationship between 2020 EPI Score and GDP per capita shows a strong positive correlation (Graph 1), although many countries outperform or have worse results than their economic peers. These results confirm hypothesis H2.

Graph 1. The relationship between 2020 EPI Score and GDP per capitafor selected countries in 2020



Source: Wendling, Z. A., Emerson, J. W., de Sherbinin, A., & Esty, D. C. (2020). 2020 Environmental Performance Index.

The Republic of Serbia was EPI with a score of 55.2 in 2020. It is ranked 45th out of a total of 180 countries (Graph 2). This result is among the weakest of the countries in Europe and represents 66.9% of the value of Denmark's EPI as a country that had an EPI value.







What gives real hope that Serbia can make a qualitative step forward in this area is the ten-year growth of this index in the amount of 7.0% (Graph 3), which is higher than the index growth of half of the countries that are the best ranked in the world in 2020, and significantly faster growth than the lowest-ranked countries, which mostly (except Afghanistan and Sierra Leone) fell behind in terms of the state of the environment, i.e. the effectiveness of environmental policies in the observed ten-year period. This dynamic leaves room for optimism that Serbia is slowly approaching world leaders in this field in terms of environmental protection.

Opening of Cluster Four - Green Agenda and Sustainable Connectivity, comprising four chapters - 14 Transport Policy, 15 Energy, 21 Trans-European Networks and 27 Environment and Climate Change at the Intergovernmental Conference in Brussels on 14 December 2021, as part of the pre-accession negotiations with the European Union, will undoubtedly be an incentive to improve the management of environmental protection and vitality of ecosystems in Serbia in the coming period.

Graph 3. 10 - year change EPI score of the top ten and last ten countries in 2020



Source: Wendling, Z. A., Emerson, J. W., de Sherbinin, A., & Esty, D. C. (2020). 2020 Environmental Performance Index.

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6. Conclusion

The concept of sustainable development focuses on social actions of trust, ethics, inequality and social support networks in communities. It looks at governance issues, which includes the performance of states and businesses. In short, sustainable development is expected to connect short-term and long-term development horizons, to put social, economic and environmental interests on an equal footing, to successfully align social scale of preferences and interests with individual, to correct market needs and internalize social and environmental costs into economic, as well as to minimize state failures by developing a partnership between the state, the private sector and civil society.

Implementing the concept of sustainable development in order to solve global environmental problems is a demanding, responsible and challenging task for all development actors in all countries. This means that efforts and activities in achieving the goals of sustainable development must be coordinated at the international level and integrated into all regional, national and local development strategies at the regional level.

An increasingly important dimension of the concept of sustainable development relates to the issue of sustainability of natural capital. In the elementary sense, managing natural capital in the light of respecting the imperative of sustainability means preserving its funds and flows over time. According to this principle, the country should strive for the sustainable use of natural capital, both by limiting depletion and by investing in its restoration. In essence, it is a controversial process of implementing the general principle into concrete rules, the application of which implies, to the greatest possible extent, the harmonization of numerous contradictions between environmental and economic principles and the criteria of sustainable development.

At the theoretical level, the issue of natural capital sustainability is directly related to the concepts of weak and strong viability. The concept of poor sustainability implies maintaining constant capital stocks, allowing the possibility of changing the structure of these stocks. Thus, natural capital can be exploited unhindered as long as the losses of natural capital stocks are compensated by increasing the stocks of produced capital. On the contrary, the view that natural capital in general cannot be replaced by produced capital and that, analogously to that fact, levels of natural capital should be maintained is found in the literature under the name of strong sustainability. According to the supporters of this hypothesis, the preservation of total capital is basically the wrong approach in the analysis of the concept of sustainable development due to a) high risk of irreversibility of the destructive process of natural resources, b) the existence of insecurity in the functioning of ecosystems and the total value of their services and the irreplaceable nature of some components of natural capital, c) aversion to loss, which many people feel when the processes of environmental degradation become visible.

Based on the explicit theoretical views on the possibility of replacing produced and natural capital, it is possible to conclude that in the long run, natural capital is a limiting factor in global economic growth. ThisThis occurs despite theunquestionable fact of continuous reduction of the share of natural capital in the total amount of capital in the process of global production.

An important tool that supports efforts to meet the goals of sustainable development and to move society towards a sustainable future is the composite indicator The Environmental Performance Index (EPI). Data for 2020 show that the state of the environment, i.e., the efficiency of environmental policies is the best in highly developed countries, while underdeveloped countries are at the bottom of the scale.

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