

# THEORETICAL AND PHILOSOPHICAL DISCOURSE ON SUSTAINABLE DEVELOPMENT AS AN ECONOMIC CATEGORY

Jens Weber<sup>1</sup>, Marc Weber<sup>2</sup>, Clara Lamade<sup>3</sup>

**Abstract.** The paper examines the multifaceted concept of sustainable development in the context of economic theory and philosophy. In addition to the introduction and findings, the paper is divided into three main parts: historical background, the scientific view of sustainable development, and sustainable development and economic growth. It examines the historical development of sustainable development as an economic category, its theoretical underpinnings and the philosophical discourse that shapes its interpretation and implementation. The paper highlights the tensions and synergies between economic growth and environmental protection by analysing different economic models and sustainability paradigms. This paper presents a critical analysis of the historical background, scientific view of sustainable development and its relationship with economic growth. It offers a nuanced understanding of sustainable development, providing insights into its role in shaping future economic policies and practices. The paper is based on a comprehensive review of literature and theoretical perspectives, and the process of creating it included the study of scientific and professional literature, the extraction of key topics, their mutual comparison, and the use of scientific methods such as induction, deduction, analysis and synthesis. The research yielded five principal findings. (1) The majority of models of sustainable development place the environmental aspect at the forefront. The authors believe that the economic and social dimensions of sustainable development are equally important in the context of new global threats. It is therefore evident that a transitional concept is required. (2) Among leading economists, there is a considerable range of views on the relationship between economic balance, growth and cyclicity, and sustainable development. A historical analysis corroborates the veracity of the dialectical approach to balance and development, thereby refuting the orthodoxy. (3) The free market model is unable to self-regulate as a result of rapid population growth and the worsening of environmental problems. Despite the high transformation rate of the market as an institution, social justice and environmental protection institutions are formed at an exceptionally slow rate in the free market. This model results in social stratification and the destruction of ecosystems. (4) For the sustainable development of society in the context of globalisation, it is necessary to implement systematic and proportional economic development mechanisms. (5) The concept of sustainable development requires clarification in modern conditions.

**Keywords:** sustainable development, economy, history, environment, economic growth.

**JEL Classification:** A12, Q01, Q32

## 1. Introduction

The Lisbon Agreement, which established the fundamental tenets governing the functioning of the EU, defines sustainable development as the overarching principle informing the EU's internal operations and external relations. From a conceptual standpoint,

it is imperative to acknowledge that international documents define sustainable development as the interplay of three interdependent and complementary dimensions: economic, social, and environmental.

The concept of harmony was already present in ancient Greek thought. According to the interpretation

<sup>1</sup> Comenius University, Slovakia

E-mail: [jens@weber81.de](mailto:jens@weber81.de)

ORCID: <https://orcid.org/0009-0003-7975-2415>

<sup>2</sup> Comenius University, Slovakia

E-mail: [m.weber85@yahoo.com](mailto:m.weber85@yahoo.com)

ORCID: <https://orcid.org/0009-0007-1198-8113>

<sup>3</sup> Danubius University, Slovakia (*corresponding author*)

E-mail: [clara@lamade.de](mailto:clara@lamade.de)

ORCID: <https://orcid.org/0009-0005-6701-5834>



This is an Open Access article, distributed under the terms of the Creative Commons Attribution CC BY 4.0

of Heraclitus, it reflects the dialectic of sustainable development. The two opposing aspects of being, namely change and stability, symbolise the universal world order, which coordinates the constant change of things and their identities with themselves. This represents cosmic justice, which precludes the possibility that the struggle of opposites will ever result in the complete victory of one of the parties (Russell, 1967, p. 63).

The second metaphysical paradigm of sustainable development is that proposed by Aristotle (2021). Metaphysical schemes of development that eschew the notion of radical transformation tend to prioritise quantitative changes within the quality sphere, with the objective of maintaining and conserving the quality in question. The subsequent evolution of the concept of sustainable development demonstrates the unification of these two principles. The metaphysical orientation within economic theory manifested itself in the form of static models of general equilibrium, which symbolised stability without qualitative system change. However, it would be erroneous to assume that sustainable development implies a state of stable equilibrium for the socio-economic system. The increase in quantitative changes inevitably gives rise to the emergence of a new quality of the system, thereby symbolising the dialectical nature of societal development.

In light of global trends in the transformation of socio-economic systems, a comprehensive analysis of the sustainable development category is required. This analysis encompasses an investigation of the interconnections between humanity and the natural world, economic systems and ecological processes, civil society and the state apparatus (Krykun, 2016).

The environmental dimension of sustainable development is the most frequently addressed in the academic literature. In the initial phases of the formation of modern society, human interactions with the natural environment were largely unstructured, localised, and, in the majority of cases, did not result in the destruction of extensive natural ecosystems. This provides an explanation for the stance of numerous economists who have operated on the assumption of the infinite availability of natural resources. Consequently, Ricardo (1817) posited that no charge should be levied for the inclusion of natural factors (agents) due to their inexhaustible nature and universal accessibility. Say reiterates the assertion that natural resources are inexhaustible, citing the fact that they are provided at no cost as evidence to support this claim. He further posits that since these resources cannot be increased nor depleted, they are not the subject of economic science (Say, 1803). These same principles were identified as underlying the development of Marxism. In Marx's view, natural resources are inherently inexhaustible and free,

and thus not subject to economic relations. Natural forces cost nothing; they enter the labour process without entering the value creation process (Marx, 1966).

## 2. Historical Background

In the era of capitalist development, European science focused on the study of nature. Bacon's principle that "knowledge is power" became a slogan for the conquest of nature. Man can either be its slave or an implacable enemy, a conqueror or an autocratic dictator (Bacon, 2017). According to Hegel, a person who wants to know the world tries to conquer and subjugate it. He uses nature against himself. He tries to use nature to his advantage, to erase its edges, to exhaust it and, in short, to destroy it (Hegel, 2020).

However, alongside the advancement of industry, the utilisation of natural resources is also intensifying. At this time, both non-renewable and renewable resources are employed in large-scale production (Garbarova, Bachanova, Vartiak, 2017). The concept of the necessity to conserve natural complexes for recreational purposes, animal protection, and scientific research is gradually gaining traction in society. Some economists are also modifying their stances on this issue. In this context, Mill (1995) discusses the environmental responsibility of society towards future generations. He suggests that in a state of higher economic formation, the private ownership of land by individuals will appear as outdated and implausible as the concept of ownership of one person by another. Indeed, even a whole culture, nation, and society of one era does not possess the earth. As the appropriate guardians of the family unit, they are merely users and should leave it in a superior state for future generations.

The early decades of the 20th century saw the emergence of the biosphere theory, which was subsequently shaped by the influence of human activity, as postulated by Vernadsky (1991). He demonstrated the necessity of considering the planetary implications of human activity. The human race is becoming a significant geological force. Prior to this, the question of restructuring the biosphere arises in the interests of free-thinking humanity as a single entity. This new state of the biosphere, which is being approached without being aware of it, is the noosphere. Vernadsky's system of scientific opinions anticipated the global community's awareness of global problems and threats (Jaseckova, Konvit, Vartiak, 2022).

In Ophuls' work entitled *Ecology and the Politics of Deficit*, the phrase "sustainable state society" was first introduced, subsequently evolving into the concept of sustainable development. Concurrently, the environmental perspective is given precedence (Ophuls, 1977).

In the 1970s, Hartwick proposed a condition for the sustainable development of society. Hartwick (1977) posited that sustainable development can be achieved by investing the entire rent from natural resources. This is defined as the difference between the market price of the resource and the marginal cost of its extraction, which should be reinvested in renewable capital, education, and environmental protection. Two approaches to stability assessment have been developed based on Hartwick's rule: the weak and the strong (Daly, 1995).

In 1970-71, Forrester (1971) constructed the inaugural global model, thereby inaugurating a new direction in mathematical modelling associated with the analysis and forecasting of world trends. The forecast obtained with the help of this model indicates that, in 75 years, the planet's raw material resources will be exhausted and food shortages will become catastrophic unless economic development is immediately reduced to simple reproduction and the growth of the world population is rigorously controlled.

### 3. Scientific Perspective on Sustainable Development

A review of the scientific literature on sustainable development reveals a clear predominance of environmental considerations. The subject of discussion is the impact of economic growth on ecology. The most conservative position is that of supporters of structural greening projects, who claim that economic growth is harmful and leads to a deepening of the environmental crisis (Vartiak, 2015). The version of ecological modernisation involves the transformation of social systems and institutions according to the requirements of the environment, without a radical restructuring of society and its education (Cannistra et al., 2022). The most liberal is the attitude of the pro-development conservation model, which advocates economic growth that stimulates technological progress, which, in their view, is the key to success in the fight against the environmental crisis (Parkhomenko, Iarmosh, 2023).

The authors believe that none of these three approaches fully reflects the current trends in sustainable development of society. Limiting growth can only partially improve the environmental situation, while at the same time significantly worsening the social problems of society, thus disturbing the overall balance of sustainability. Technical progress alone cannot ensure the sustainable development of society without controlling the use of non-renewable resources, solving the problems of proportional development of the world economy and reducing the probability of technogenic disasters.

More adequate to current realities is the middle concept of environmental modernisation, which

reflects the need for institutional changes, even if it needs to be strengthened in terms of more active development of civil society. According to the authors, the environmental protection strategy should not exclude economic growth, but try to make it more efficient by taking into account environmental requirements with the help of civil society.

In general, the trend towards the dominance of an exclusively environmental paradigm of sustainable development, in the authors' opinion, is erroneous, as economic and social aspects are no less significant in terms of new global threats. From an economic standpoint, the interrelationship between economic growth, economic cycles, and economic balance with the sustainable development of society is a crucial consideration.

### 4. Sustainable Development and Economic Growth

An analysis of the evolution of economic growth theories shows that most of them do not take into account the environmental and social aspects of sustainable development of society. For example, A. Smith (2012) notes that the wealth of the nation is the product of material production, the value of which depends on the share of the population engaged in productive work and labour productivity. A. Marshall (1993) links economic growth with the number of workers, labour productivity, the availability and location of natural resources, the level of technological development and the stability of expectations of economic subjects. W. Lewis (1959) advocates a redistribution of resources from the agricultural sector to the industrial sector, interpreting development as overcoming the dualism between barter and market economies. R. Solow's model identifies the following factors as the main sources of economic growth: population growth in the productive age, capital growth in all its forms and the development of new technologies. The position of these and many other authors seems controversial, as it does not take into account the environmental consequences of economic growth, the crisis of overproduction and the increasing social stratification of society (Solow, 1956).

The distinction between economic growth and economic development was introduced into economic science by Schumpeter (1982). Schumpeter defined economic growth as an increase in the production and consumption of the same goods and services over time. In contrast, he defined economic development as the emergence of something new, previously unknown. This can be expressed as innovation. G. Myrdal (1968) also presents an opposing viewpoint to the theory of growth and the theory of development. He asserts that growth that is not accompanied by an improvement in the situation

of the majority of the population is contrary to the concept of development, which is understood as an increase in the satisfaction of the basic needs of all members of society. J. Galbraith (1984) proposes that lower growth rates represent a peaceful and mutually beneficial approach to addressing environmental concerns.

A critical discussion is whether the sustainable development of society is linked to economic equilibrium, which symbolises sustainability (stability) in its economic-mathematical sense. In this context, the strength of the socio-economic system is determined by its ability to return to the initial state when diverted from it, L. Walras (2019) developed the theory of general economic equilibrium, which can answer questions about the possibility of complete equilibrium of the market and its stability. His disciple Pareto showed that the best allocation of goods and resources corresponds to a market state in which no one can improve his or her position without worsening the position of at least one of its participants (Seligman, 1968). Subsequently, many scholars began to refer to the idea of general economic equilibrium as orthodoxy. These studies focus on static markets, homogeneity of agents, determinism and stability.

The opposing direction, which is associated with the uncertainty of development, instability and lack of balance, was named Evolutionary Theory. One of the founders of this theory is Schumpeter, whose work, entitled *The Theory of Economic Development*, demonstrates that capitalism is not static but rather undergoes constant development. This development does not occur in a circle but rather in a spiral. The evolutionary process is presented as a manifestation of innovators displacing conservatives and occupying vacant market niches. Over time, innovators become conservatives, and a new round of development begins (Konvit, Jaseckova, Vartiak, 2023). Historical analysis confirms the correctness of Schumpeter's dialectical approach and rejects orthodoxy. In the modern world, only innovation can ensure the most efficient use of resources, improve the quality of production and meet the needs of society.

## 5. Results

There is a broad debate about the relationship between the market and the state. Neoclassicals who remain in market positions recognise the need to improve government regulation of social and environmental problems. Proponents of state regulation of the economy attach great importance to combining global competition with planned and proportional development of the economy. Both speak of the need to strengthen the social responsibility of the state and business in modern conditions.

Very close to the previous one is the question of the expediency of the sustainable development of society and the use of mechanisms for systematic and proportional economic development. In addition, the development of the economy of industrial and post-industrial society required the updating of the concept of civil society and the strengthening of the role of human capital in the development of civilisation. J. Cohen and E. Arato (1994) interpret civil society as a sphere of social integration between the economy and the state, including the family, public organisations and associations, and social movements. As J. Keane (1998) notes, economic entities achieve their goals by drawing on internal sources of social capital such as trust, honesty and responsibility. Where there is no market, civil society cannot survive, but, on the other hand, where there is no civil society, there can be no market. One of the modern concepts of civil society, the third way concept, assigns arbitration and civilising functions to the state, and control over the state and business to civil society. According to the British sociologist E. Giddens (2000), civil society is a factor that simultaneously restrains (contains) the market and the state.

Thus, according to the authors, one of the most important principles of sustainable development of civilisation is the formation of a full-fledged global civil society capable of controlling environmental protection and socio-economic development. This statement confirms the growing concern of the entire world community about international threats.

V. Lafferty (1996) identifies four basic principles of sustainable development: the satisfaction of the basic needs of all living people, the same standard of satisfaction for the entire population of the planet, the prudent use of natural resources and the preservation of the possibility for future generations to satisfy their basic needs. This definition is difficult to accept because it does not take into account the economic aspect of sustainable development, which is very important in the current crisis.

A. Ursul and A. Romanovič (2009) offer a more concrete interpretation of Brundtland's definition of sustainable development. They consider sustainable development to be a process whereby the needs of current generations are met without causing harm to future generations. This involves a controlled and balanced development of society that does not destroy its natural basis and ensures the continuous progress of civilisation. However, this definition is arguably too broad and vague. It is challenging to determine the level of ability of future generations to meet their needs.

Summarising different approaches to the economic category of sustainable development, the following conclusions can be drawn:

1. Most models of sustainable development prioritise the environmental aspect. According to the authors, the economic and social aspects of sustainable development are no less important in terms of new global threats. Therefore, a transitional concept is needed. One of them may be the concept of priorities: among the three factors – environmental, economic and social – environmental should have the highest priority, and economic – the lowest. Economic policy should, firstly, ensure that resources are used within environmental constraints, secondly, that these resources are distributed equitably, and thirdly, that economic development is efficient.

2. Among leading economists, there is a considerable range of views on the relationship between economic balance, growth and cyclicity, and sustainable development. Historical analysis confirms the correctness of the dialectical approach to balance and development and rejects the orthodoxy. The ambiguous impact of economic growth on the sustainable development of society is particularly noticeable in recent decades due to the awareness of the importance of global environmental threats. The accelerated economic expansion in developed countries has played a pivotal role in the deterioration of the environmental situation and the intensification of crisis phenomena in underdeveloped countries. In the context of globalisation, the limitation of consumption in developed countries presents an opportunity to enhance the quality of life of the global community. Consequently, one of the principal objectives of sustainable development is the redistribution of existing resources. The cyclical nature of the economy has the effect of increasing economic activity, but this also gives rise to crisis phenomena that threaten sustainable development.

3. The free market model is inherently incapable of self-regulation in the face of rapid population growth and the intensifying environmental crisis. Despite the market's high transformation rate, social justice and environmental protection institutions emerge at an alarmingly slow pace within the free market. This model gives rise to social stratification and the destruction of ecosystems. In the context of globalisation, ensuring sustainable development necessitates the reinforcement of the state and civil society's regulatory role in market relations. The state must create conditions that support market competition in terms of environmental regulation and effective social policy. Civil society must monitor

both the state and the market, be at the forefront of social progress, anticipate threats and seek ways to minimise them. In order to ensure the sustainable development of society, national governments and international organisations must define the limits of the development of the national and world economy and ensure that it functions within these limits. To this end, it is appropriate to improve transnational laws and institutions that guarantee control over the sustainable development of civilisation.

4. For the sustainable development of society in the context of globalisation, it is necessary to use systematic and proportional economic development mechanisms. Indicative planning is justified in modern conditions and should be introduced to some extent in the management of global economic processes. In addition, it is appropriate to strengthen the proportionality of the development of the world economy. Among the proportions that need to be strengthened are the sectoral and territorial proportions of the national and global economy.

5. The concept of sustainable development needs to be clarified in today's context. According to the authors, sustainable development is a continuous process of forming a global civil society, reducing social inequality and the environmental burden on the biosphere, developing new resource-saving and environmentally friendly technologies to prevent global environmental, economic and social threats, and ensuring economic growth without harming the environment.

The dynamics of sustainable development can be described as follows: the emergence of civil society in most countries of the world → the awareness of developing countries of their importance and of the need to jointly solve environmental problems, and the awareness of developed countries of the need to limit resource consumption → the creation and improvement of national and transnational institutions that contribute to solving global problems → active environmental policies to preserve the biosphere, even at the expense of economic growth → further development of civil society → further development of civil society, progress in solving demographic and food problems, and state control of the economy → development and improvement of new environmentally friendly and resource-saving technologies that create the so-called preconditions for energy security and economic growth without damaging the environment → sustainable economic growth.

## References:

Aristotle (2021). *Metaphysics*. Prague: Rezek.

Bacon, F. (2017). *The New Organon or: True Directions Concerning the Interpretation of Nature*. New York: Jonathan Bennett.

- Cannistra, M., Agasisti, T., Amagir, A., Poder, K., Holz, O., Vartiak, L. & De Witte, K. (2022). A comparative analysis of financial literacy levels and initiatives among students in five European countries. *Research in Comparative and International Education*, Vol. 17(2), p. 246–280.
- Cohen, J., & Arato, A. (1994). *Civil Society and Political Theory*. Cambridge: MIT Press.
- Daly, H. E. (1995). On Wilfred Beckerman's Critique of Sustainable Development. *Environmental Values*, Vol. 4(1), p. 49–55.
- Forrester, J. W. (1971). *World Dynamics*. Waltham: Pegasus Communications.
- Galbraith, J. K. (1984). *Ekonomické teórie a ciele spoločnosti*. Bratislava: Pravda.
- Garbarova, M., Bachanova, P. H. & Vartiak, L. (2017). Purchasing Behaviour of E-commerce Customers. *Management and Economics in Manufacturing. Proceedings of the Global Scientific Conference on Management and Economics in Manufacturing*. Zvolen: Technical University. P. 160–165.
- Giddens, A. (2000). *The Third Way and its Critics*. Cambridge: Polity Press.
- Hartwich, J. M. (1977). Intergenerational equity and investing of rents from exhaustible resources. *The American Economic Review*, Vol. 67(5), p. 972–974.
- Hegel, G. W. F. (2020). *Fenomenológia ducha*. Bratislava: Patricia Elexová.
- Hueting, R. (1989). Correctioning National Income for Environmental Losses: Toward a Practical Solution. *Economy & Environment*, Vol. 5, p. 23–47.
- Jaseckova, G., Konvit, M. & Vartiak, L. (2022). Vernadsky's concept of the noosphere and its reflection in ethical and moral values of society. *History of Science and Technology*, Vol. 12(2), p. 231–248.
- Keane, J. (1998). *Civil Society: Old Images, New Visions*. Cambridge: Polity Press.
- Konvit, M., Jaseckova, G. & Vartiak, L. (2023). A Contemporary View of the Planetary Oikos through the Prism of Technology and Management. *META-Research in Hermeneutics Phenomenology and Practical Philosophy*, Vol. 15(2), p. 367–386.
- Krykun, V. (2016). Sustainable development and ecological responsibility of business. *Baltic Journal of Economic Studies*, Vol. 2(1), p. 65–71.
- Lafferty, W. M. (2007). The politics of sustainable development: Global norms for national implementation. *Environmental Politics*, Vol. 5(2), p. 185–208.
- Lewis, W. A. (1959). *The Theory of Economic Growth*. London: Unwin Hyman.
- Marshall, A. (1993). *Principles of Economics*. Žilina: Vydavateľstvo Pokrok.
- Marx, K. (1966). Ekonomicko-filozofické rukopisy. In: *Malé ekonomické spisy*. Bratislava: Vydavateľstvo politickej literatúry.
- Meadows, D. H., Meadows, D. L., Randers, J., Behrens, S. (1992). *Limits to growth*. New York: Universe Books.
- Mill J. S., Nutzinger H. G. & Radre V. (1995). *Das Konzept der nachhaltigen Wirtschaftsweise*. Croydon: Metropolis.
- Myrdal, G. (1968). Asian Drama: An Inquiry into the Poverty of Nations. *The Australian Quarterly*, Vol. 40(4), p. 118–121.
- Ophuls, W. (1977). *Ecology and the politics of scarcity: Prologue to a political theory of the steady state*. San Francisco: W. H. Freeman.
- Parkhomenko, O. & Iarmosh, O. (2023). Provision of global sustainable development as a factor in the formation of local welfare. *Baltic Journal of Economic Studies*, Vol. 9(5), p. 206–214.
- Ricardo, D. (1817). *On the Principles of Political Economy, and Taxation*. London: J. Murray.
- Russell, B. (1967). *A History of Western Philosophy*. London: Simon & Schuster.
- Say, J. B. (1803). *Traité d'économie politique ou simple exposition de la manière dont se forment, se distribuent ou se consomment les richesses*. Paris: Crapelet an XI.
- Seligman, B. B. (1968). *Hlavné prúdy moderného ekonomického myslenia*. Moscow: Progress.
- Schumpeter, J. (1982). *Teória ekonomického rozvoja*. Moscow: Progress.
- Smith, A. (2012). *Wealth of Nations*. Oxford: Oxford University Press.
- Solow, R. M. (1956). A Contribution to the Theory of Economics Growth. *The Quarterly Journal of Economics*, Vol. 70(1), p. 65–94.
- Ursul, A. D., & Romanovič, A. L. (2009). Civilizacijsko-etički aspekti biosfernog gazdovanja. *Ekonomika poljoprivrede*, Vol. 56(1), p. 1–11.
- Vartiak, L. (2015). Achieving excellence in projects. *Procedia Economics and Finance*, Vol. 26, p. 292–299.
- Vernadsky, V. I. (1991). *Vedecké myslenie ako planetárny fenomén*. Martin: Veda.
- Walras, L. (2019). *Elements of Theoretical Economics*. Cambridge: Cambridge University Press.

Received on: 21th of September, 2024

Accepted on: 17th of November, 2024

Published on: 17th of December, 2024