

Environmental economics and sustainable development

Salman Kurbanov^{1,*}, *Elena Meshchangina*², and *Natalya Stefanova*³

¹Kadyrov Chechen State University, Grozny, Russia

²Moscow Polytechnic University, Moscow, Russia

³Povolzhskiy State University of Telecommunication and Informatics (PSUTI), Samara, Russia

Abstract. The advancement of science and technology, coupled with the growing influence of human activities, has exacerbated environmental issues and caused socio-economic tensions in countries worldwide. Problems such as the depletion of natural resources, environmental pollution, and declining public health due to adverse environmental factors demand effective solutions. The deteriorating environmental conditions further complicate the challenge of achieving sustainable regional development. It is increasingly important to consider environmental factors when formulating regional development programs, establishing investment policies, and addressing resource conservation. The interconnection between the economic and environmental domains forms the core of sustainable territorial development. Currently, the "green" economy is promoted as the foundation for this interrelation, aiming to enhance human well-being while simultaneously reducing risks to the natural environment. As such, the research topic remains highly pertinent in addressing these pressing issues.

1 Introduction

The consequences of unchecked economic growth relying on the unlimited exploitation of natural resources inevitably impose constraints on further development. The escalation of environmental issues and disturbances in the delicate balance of the biosphere continually result in unforeseeable consequences, including climate change and epidemic diseases. These environmental problems give rise to socio-economic challenges that demand immediate resolutions, further exacerbating the environmental crisis. Differentiating between the roles of social and natural factors in ongoing changes is becoming increasingly challenging [1]. The pleas from countries that have faced environmental crises, which no longer wish to disregard the necessity of harmonizing the relationship between humans and nature, have been only partially heeded, if at all. Natural and social abnormalities resulting from improper conduct have become the "norm" of life.

Safeguarding a healthy environment in densely populated areas necessitates ongoing vigilance. Caring for the environment is increasingly evolving from an act of humanism toward nature to an essential condition for human survival. This realization has led to the

*Corresponding author: ksalman-1979@yandex.ru

inclusion of environmental issues in the realm of politics and the formulation of the fundamentals of a new development paradigm .[2]. The importance and significance of the challenge of ensuring further development prompted the United Nations (UN) to give this topic special attention. The accumulated experience has provided several valuable lessons that have shaped the foundations of the contemporary concept of sustainable development.

These lessons underscore the urgency of the environmental crisis threat, the complexity of meeting environmental standards without addressing pressing socio-economic issues, and the imperative for active engagement from civil society. In essence, the concept of sustainable development represents humanity's inaugural serious endeavor to embark on the path of noospheric development. Ideas concerning sustainable development encompass not only socio-economic priorities but also environmental priorities, emphasizing the necessity of aligning the ever-expanding human needs with the planet's natural capacities, all while safeguarding the prospects for future generations. A mark of political sagacity is the present interpretation of prospects for resolving environmental issues within the fundamental principles of constructing and advancing a modern economy, adhering to the "win-win" principle, which mandates a mandatory social and environmental impact for all projects. A salient characteristic of contemporary politics is that the requisites of sustainable development are portrayed as voluntary constraints for developed nations and new opportunities for developing countries, particularly when delineating the unique role of nations blessed with abundant natural resources.

The relentless increase in the consumption of natural resources, which is caused by unchecked exploitation of natural resources and its consequences are exacerbating issues such as pollution, climate change, resource depletion, including the scarcity of freshwater from forests to biodiversity loss (fig.1).

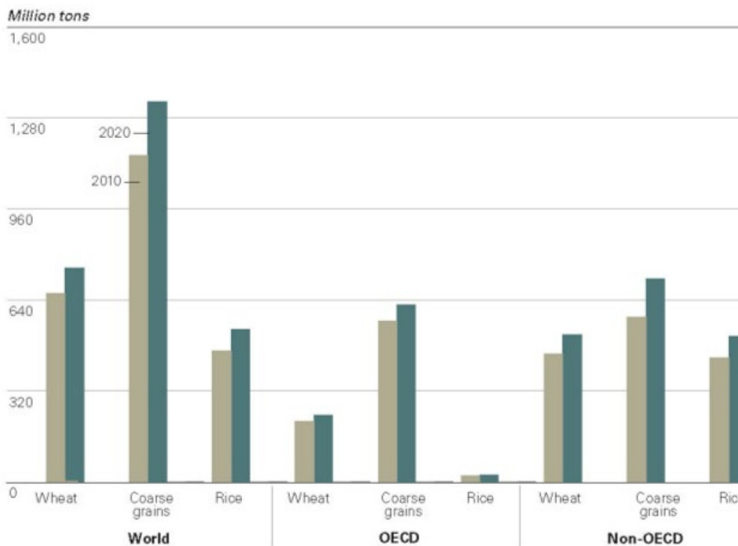


Fig. 1. Natural Resources in 2020, 2030, and 2040.

According to the scientific studies, this disruption to all balance of the biosphere and the existing harmonious harmony among its components leads to unpredictable consequences, including the emergence of new epidemiological diseases. So, distinguishing between natural and societal factors, both in causing the anomalies and its ensuing effects has grown into an unprecedented complexity. At the same time, this underscores the need to harmonize human activities with nature when tracing pathways for economic development. This disruption to the overall balance of the biosphere and the established harmony among

its components leads to unpredictable consequences, including the emergence of new epidemiological diseases. Consequently, distinguishing between the contributions of natural and societal factors, both in causing these anomalies and their ensuing effects, has become an increasingly complex endeavor [2]. This underscores the necessity of harmonizing human activities with nature when charting paths for economic development.

Despite the diversity of definitions surrounding sustainable development, they all share a fundamental commonality - the recognition of the need to align human progress with the natural world. Environmental stewardship is no longer merely an act of humanism toward nature; it has evolved into an imperative for ensuring human survival. Environmental issues give rise to socio-economic challenges that demand immediate attention [3]. Conversely, unresolved social and economic issues can exacerbate environmental problems. The impetus for the concept of sustainable development stemmed from the realization that the present generation's use of natural resources should not deprive future generations of the same opportunities (as articulated by the Brundtland Commission in 1987).

2 Research Methodology

When reflecting on the experience of putting the concept of sustainable development into practice, international organizations have observed that the actual relationship between its three core elements differs from what was initially envisioned in theory. Despite political proclamations and claims of prioritizing environmental concerns, the economic aspects have continued to dominate, followed by social considerations, while environmental issues, which were originally the foundation of the development concept, have received relatively less attention. This realization has underscored the need to incorporate environmental requirements not merely as separate programs but as the foundational basis for addressing socio-economic challenges that affect everyone, primarily focusing on eradicating poverty.

The practical implementation of sustainable development principles has revealed that meeting environmental requirements is intricately tied to resolving fundamental socio-economic issues [5]. Poverty eradication is paramount in this regard. It has become evident that a fresh interpretation of sustainable development principles is imperative. The pressing challenges for ensuring the survival and advancement of humanity, coupled with the urgent need to address long-term sustainable development issues, have been identified. The looming environmental crisis, resource scarcity, and the detrimental consequences of human activities on future generations are increasingly apparent. The responsibility for practically implementing the principles of sustainable development is shifting from a governmental task to a matter of social responsibility, encompassing various sectors, including government agencies, businesses, and the public.

It has become clear that solving these problems necessitates the active involvement of civil society [6]. The resistance to the idea of "limiting needs" has prompted the formulation of more fundamental principles that disengage economic growth from the depletion of natural capital. These considerations collectively form the foundation of contemporary notions surrounding sustainable development.

3 Results and Discussions

This is the reason for the choice of developmental paths, which are highly influenced not only by current demands and difficulties but also by our visions of the future we want. In this context, the UN Conference "Rio+20" in 2012 holds significant importance, occurring two decades after the pivotal 1992 meeting in Rio de Janeiro, at what time the concept of sustainable development became an important paradigm for all peoples. The event is held

two decades after the pivotal 1992 meeting in Rio de Janeiro, where the concept of economic and social development became the prevailing paradigm for the global community. The gathering of the conference was notably large. When we summarize its significance, it represented another important step taken by the global community in the right direction [8].

It was the primary result of this conference, as international leaders again revisited it. This conference was the main result of its work, as international leaders again revisited this topic. In addition, the main outcome of the meeting was that world leaders revisited the theme of sustainable development. A document that encompasses all major aspects of sustainable development, they adopted the declaration [7] "The Future We Want", an integration document that encompasses all major aspects of sustainable development. At the conference itself and in 1992 in Rio de Janeiro, proposals for sustainable development did not come out as absolute and categorical. The proposals for sustainable development, both at the conference itself and at the conference itself, were not completely unified or specific. The fact that they were made to be such an unequivocal statement of nature's concerns on social media or even before presentation of environmental issues on the stage at the 1972 Stockholm Environment Conference.

Principles of Green Economy



Fig. 2. Principles of a green economy.

When international organizations assessed the experience of implementing the concept of sustainable development, they observed a notable deviation in the practical relationship between the three primary elements compared to the theoretical expectations [9]. Despite the political declarations and assertions regarding the precedence of environmental concerns, economic aspects continue to hold the utmost significance, followed by social aspects, while environmental issues, originally foundational to the proposed development concept, receive minimal attention [10]. This has spurred the imperative of ensuring that environmental requisites are not treated as isolated programs but are instead integrated as the fundamental basis for addressing socio-economic issues that fundamentally concern everyone. The practice of implementing sustainable development ideas underscores that adhering to environmental standards proves to be a challenging endeavor without simultaneously resolving core socio-economic challenges, particularly the elimination of poverty. It has become increasingly evident that the principles of sustainable development demand a different interpretation [11]. The urgency of addressing challenges to secure the survival and progression of humanity, as well as the pressing need to expeditiously tackle the long-term issues associated with sustainable development, has been recognized. The

present-day acknowledgment centers on the imminent environmental crisis, the dwindling natural resources, and the adverse repercussions of human activities on future generations.

4 Conclusions

The mechanism for translating the concept of sustainable development into action is fundamentally similar to other political ideas. It involves the development of a conceptual framework by experts, decision-making by the government, and practical implementation by businesses. However, the success of this process is contingent upon the readiness and active participation of the population at all stages, from the initial formulation of the idea to its implementation and ongoing monitoring. In the case of sustainable development, the role of civil society is especially significant because the essence of this idea reflects the interests of the people.

Government agencies often focus on pressing, immediate issues, which underscores the crucial role of civil society in establishing and working toward long-term goals for sustainable development. Therefore, the success of progress towards sustainable development is largely dependent on the engagement of civil society. It would be overly simplistic to assume that government decisions alone can drive a profound societal shift towards sustainable development. Active and informed support from the population is essential for the implementation of these decisions.

References

1. A. A. Daukaev, R. Kh. Dadashev, L. S. Gatsaeva, R. A. Gakaev, *IOP Conf. Series: Earth and Environmental Science*, 378 (2019)
2. A. Yu. Apokin , D. R. Belousov, *Scenarios for the development of the world and Russian economy as a basis for scientific and technological forecasting*, **3(3)**, 12–29 (2009)
3. *Bio-Economy Technology Platforms. The European Bioeconomy in 2030: Delivering Sustainable Growth by addressing the Grand Societal Challenges* (2021)
4. C. Cagnin, E. Amanatidou, M. Keenan, *Orienting European Innovation Systems towards Grand Challenges and the Roles that FTA Can Play*, **39(2)**, 140–152 (2020)
5. E. Reynard, M. Panizza, *Geomorphosites: definition, assessment, and mapping. Geomorphol Relief* , 177–180 (2018)
6. *EU-Russia Energy Dialogue, Energy Forecasts and Scenarios 2009–2010 Research. Final Report* (2021)
7. K. Haegeman, F. Scapolo, A. Ricci, E. Marinelli, A. Sokolov, *Quantitative and qualitative approaches in FTA: from combination to integration?*, **80**, 386–397 (2021)
8. R. Kh. Ilyasov, *Spline modeling and analysis of relationships in the economy with the possible presence of regression switching points*, **11(4)**, 165-175 (2018)
9. K. M.-S. Murtazova *Ecological and economic assessment of sectoral agricultural technologies*, **3(15)**, 68-71 (2021)
10. A. S. Salamova, *Socio-economic factors in the fight poverty and hunger in the modern world: the scientific approach of Amartia Kumar Sen*, **17(1)**, 237-245 (2023)
11. A. S. Salamova, *Global networked economy as a factor for sustainable development*, 03053 (2020)
12. S. Cetin, M. Davarci, A. Karakas, *The Manager*, **13(3)**, 30-45 (2022)