TECHNOGENESIS, GREEN ECONOMY AND SUSTAINABLE DEVELOPMENT

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Third International Thematic Monograph

TECHNOGENESIS, CLIMATE CHANGE AND ENVIRONMENTAL PROTECTION

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FOREWORD

Our time is marked by tectonic tremors and unpredictable turbulent changes in all spheres of the economy, trade, energy, tourism and the financial sector.

Tectonic shifts of all previously established and accepted rules of international politics cause armed conflicts.

The processes of technogenesis are deepening due to military conflicts and the associated technological and natural disasters, as well as climate change.

The need to mitigate climate change and adapt the economy to these changes is associated with the fight against environmental, social and financial consequences such as the loss of water and land resources, food shortages and mass migrations of the population.

The monograph "Technogenesis, climate change and environmental protection" is the result of serious and difficult work, knowledge and experience of authors in the field of economics and environmental protection, which aims to raise awareness of the need to apply the principles of green economy to develop many productive sectors avoiding environmental pollution.

The monograph includes eleven chapters, which contain material that, in the opinion of the authors and in mine opinion as referee, could be relevant and important for solving the problem of environmental pollution and climate change caused by technogenesis.

The first chapter of this monograph deals with "Political-legal approach to the issue of green economy in the light of climate change". Republic of Serbia has all the necessary inspection services to control compliance with these norms, as well as that practically every one of them exists not only based on our needs and laws, but also because we had ratified numerous international law documents, and hence, regardless of the frequent reconstructions of the Government of the Republic of Serbia, its ministries always have services suitable for those inspection tasks, as well as subordinate inspectorates at the level of provinces, cities and municipalities

The second chapter "Organic agriculture development in Serbia and surrounding countries" investigates the development through a comparative analysis of Serbia with neighboring countries as well as with the most developed European countries in the field of organic agriculture. The authors point out that agricultural farms that operate efficiently and effectively with the use of their own production resources, can more easily access investment funds, which enables sustainable economic development.

The third chapter "The importance of smart cities as a modern urban settlement solution" This chapter analyzes some factors of importance for attracting foreign direct investment in the development of smart cities and smart villages in Serbia.

The fourth chapter "Eco-sports tourism: pros and cons" refers to the diversification of the eco sports tourism, specialization and creation of new tourism products, generation of additional income and environmental protection.

The fifth chapter "Phytogeochemical characteristics of technogenesis sites in Donbass: indication and prospect of remediation" show a fundamental important objective transformation of the geochemical status of the studied slag heaps in connection with the military events in Donbass.

In the sixth chapter "Fraud as the topic for research and main fraud indicators in independent audit processes" are intended to help auditors improve their fraud detection capabilities and enhance the overall quality of independent audit processes. The correct financial reporting is the pillar of companies sustainability and very important for adapting the economy to climate change.

In the seventh chapter "Radiobiogeochemical assessment of soil-vegetation cover of agroecosystem of the Issyk Kul region, Kyrgyzstan" it is shown that uranium tailings dumps and dumps on the territory of the Republic of Kyrgyzstan are potential sources of pollution of atmospheric air, soil, underground aquifers - sources of drinking water supply, as well as plant and soil cover, wildlife and humans. The need for constant radioecologic monitoring of the territories is emphasized.

The eighth chapter "The current state and future trends of the energy system in Serbia" examines the situation related to absorbing, using and storing carbon, with the aim of decarburization. A comparative analysis of electricity production from RES: wind energy, hydropower, solar energy and biofuels was also considered. The aim of the work also included the positioning of the results of the development points of the energy system of Serbia, as well as the discovery of its weak points in the global and regional frameworks. Comparative analysis of electricity production from different energy sources in Serbia with the countries of the selected region: Croatia, Bulgaria and Hungary was carried out.

In the ninth chapter "Sustainability and economic growth: do green policies encourage or slow down economic expansion?" authors analyzed the relationship between greenhouse gas emissions, total factor productivity (TFP), and economic growth in 11 transition economies, comparing the results with the European Union (EU27) average and global trends.

Tenth chapter “Sustainable Wine Tourism: A Comparative Study of Italyand Brazil” examines the role of wine tourism in driving economic growth. Investment in wine tourism, especially in the form of foreign direct investment, can become a key factor in green economic growth.

Chapter 11 “Analysis of implementation of environmental tax models and related economic instruments in European countries” explores the effectiveness of various fiscal policies such as carbon taxes, energy taxes, pollution levies, and market-based instruments, like emissions trading systems, across Europe. It evaluates the success of these policies in reducing GHG emissions, promoting renewable energy adoption, and fostering sustainable economic growth. The study examines the challenges faced in implementing these models, including political resistance, social equity concerns, and carbon leakage risks. It also discusses the evolving trends in environmental taxation, such as tax shifting, and carbon pricing integration.

The monograph "Technogenesis, climate change and environmental protection", conceived as a multidisciplinary monograph, covers a large number of areas related to this important and attractive topic. The monograph presents the works of Serbian, Russian, Australian, Croatian and Kyrgyz scientists. Therefore, the target groups for whom the monograph can serve as a basis and support for further work include a large number of experts and specialists from various fields of science: university teachers, postgraduate students, and young scientists engaged in research in certain sectors of environmental protection, technogenesis, and the green economy.

In this regard multidisciplinary monograph "Technogenesis, climate change and environmental protection" is significant for the study of many categories of the academic and professional community and serve as a basis for the further work.

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