ECONOMIC ANALYSIS OF PRODUCTION VOLUME DYNAMICS AT ENTERPRISES WITHIN THE "UZKIMYOSANOAT" JSC SYSTEM

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Abstract. This thesis discusses the active development of Uzbekistan's chemical industry as a strategic sector for the country's economy, the dynamics of changes in production volumes at enterprises within the "Uzkimyosanoat" JSC system over the years, the dynamics of total production volumes across these enterprises, and a methodology for analyzing the sustainable development level of chemical industry enterprises using an integrated scientific and methodological approach.

Keywords: chemical industry, global industry, environmental pressure, environmental load, technological modernization, chemical products, global demand.

Currently, chemical enterprises face a number of problems, such as high energy consumption, strong dependence on raw material resources, increasing environmental pressure, high production costs, and technological obsolescence. In particular, the chemical industry is one of the main sectors generating a large portion of global industrial waste and greenhouse gas emissions. For this reason, developed countries are paying special attention to ensuring the sustainable development of enterprises through the introduction of energy-saving technologies, the digitalization of production processes, the application of circular economy principles, and the improvement of environmental management systems. In particular, the chemical industry is considered one of the major sectors contributing to industrial waste and greenhouse gas emissions worldwide.

Although the country's chemical industry is actively developing as a strategic sector of the economy, problems such as high energy consumption, depreciation of fixed assets, insufficient capacity utilization, increasing environmental burden, and low resource efficiency still persist in certain enterprises. In particular, optimizing production costs, ensuring environmental safety, widely introducing energy-saving technologies, and increasing the sustainability of enterprise activities within the "Uzkimyosanoat" JSC system are of great scientific and practical significance.

Regarding the development of the chemical industry, J. Elkington expressed the view that "sustainable development should be assessed based on the harmonization of economic, environmental, and social outcomes" [1]. M. Porter noted, "Environmental requirements and innovations are factors that strengthen an enterprise's competitive advantage" [2]. In this regard, S. Hart put forward the idea that "Rational use of resources and 'green' technologies ensure long-term sustainability." An analysis of the scientific views of these scholars shows that ensuring the sustainable development of chemical industry enterprises requires the harmonization of economic efficiency, environmental safety, resource conservation, innovative technologies, and effective management mechanisms.

The chemical industry is one of the strategic sectors of the global economy, supplying raw materials and semi-finished products to sectors such as agriculture, pharmaceuticals, construction, energy, automotive, and consumer goods production. In this regard, analyzing the growth trend of the global chemical industry's volume is of great importance in assessing the sector's potential for sustainable development.

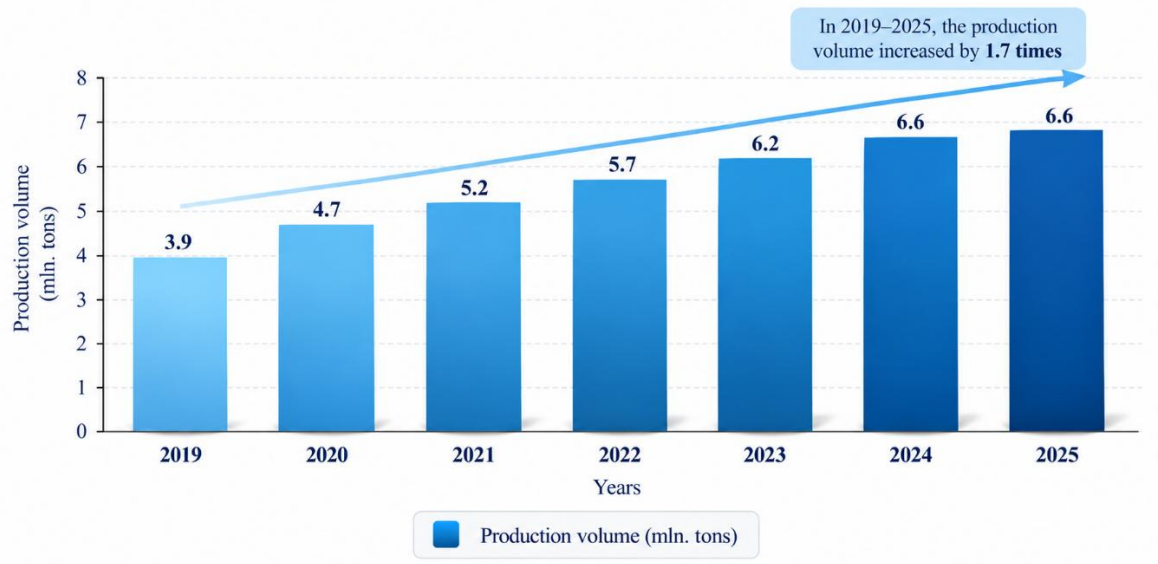


Figure 1. Dynamics of global chemical industry volume (trln $)

As shown by the data in Figure 1, the global chemical industry was valued at $3.9 trillion in 2020, and by 2025, this figure reached $6.6 trillion. During this period, the size of the industry grew by $2.7 trillion, or nearly 1.7-fold. Growth rates were particularly high between 2020 and 2022, and a stable growth trend has been maintained in the subsequent years. This trend can be attributed to the growing global demand for chemical products, technological modernization, an increased share of innovative products, and the broader use of chemical resources across industrial sectors.

Table 1.

Dynamics of production volume at enterprises within the Uzkimyosanoat JSC system, 2021–2024 (billion soums)

Enterprise	**2021**	**2022**	**2023**	**2024**	**Absolute growth 2021–2024**	**Relative growth 2021–2024 (%)**
Navoiyazot JSC	2 980,0	5 306,4	4 779,1	5 817,0	+2 837,0	+95,2

Ferganaazot JSC	620,0	820,0	1 119,1	1 382,1	+762,1	+122,9
Maksam-Chirchik JSC	850,0	1 020,0	1 250,0	1 811,4	+961,4	+113,1
JSC "Ammofos-Maxam"	180,0	250,0	300,0	350,0	+170,0	+94,4
Dehkanabad Kalium JSC	90,0	130,0	155,0	180,0	+90,0	+100,0
Kungrad soda plant	55,0	75,0	90,0	110,0	+55,0	+100,0
TOTAL	4 775,0	7 601,4	7 693,2	9 650,5	+4 875,5	+102,1

According to the data in Table 1, between 2021 and 2024, the total production volume of enterprises within the system of Joint-Stock Company "Uzkimyosanoat" increased from 4,775.0 billion soums to 9,650.5 billion soums, representing a growth of 102.1 percent. Although the highest relative growth rate among these enterprises was achieved by JSC "Farg'onaazot" (122.9%), the highest absolute growth was recorded at JSC "Navoiyazot," amounting to 2,837.0 billion soums. These results demonstrate that the measures implemented to expand and modernize the production capacities of chemical industry enterprises have yielded positive outcomes. Although the highest relative growth rate among these enterprises was achieved by JSC "Farg'onaazot" (122.9%), the highest absolute growth was recorded at JSC "Navoiyazot," amounting to 2,837.0 billion soums.

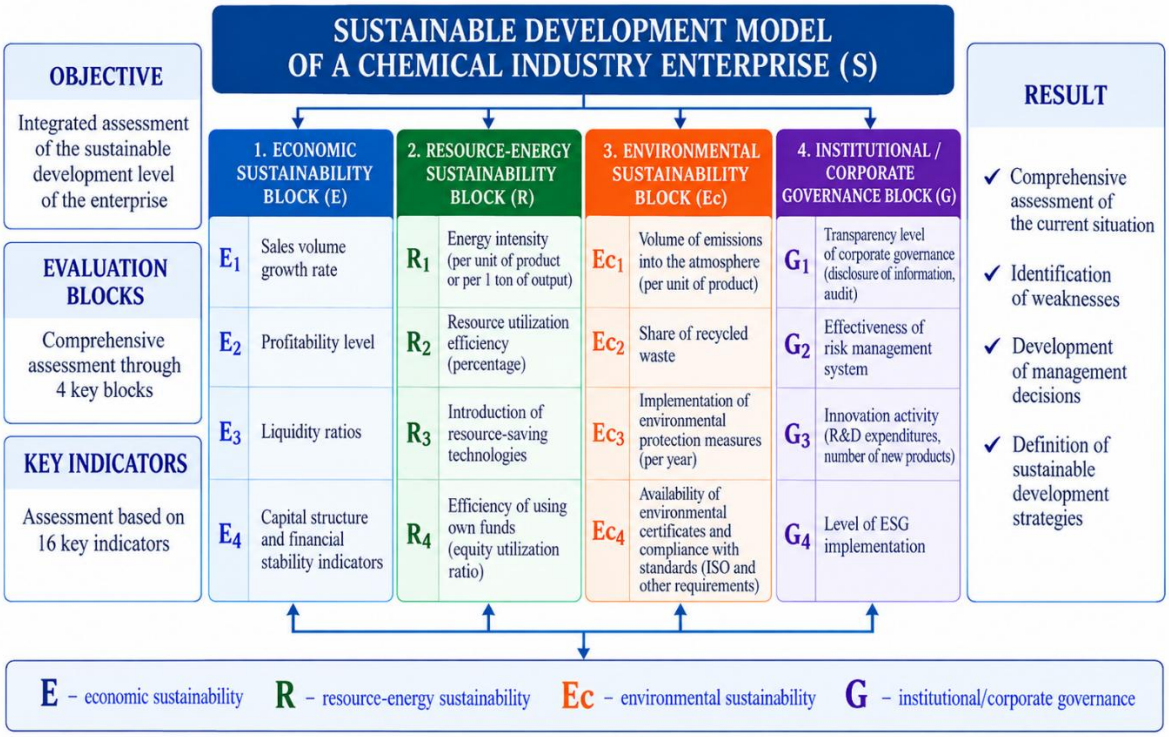


Figure 3. Integrated scientific and methodological approach to assessing the level of sustainable development of chemical industry enterprises (using the example of JSC "Uzkimyosanoat")

In Figure 3, we propose a scientific and methodological approach for assessing the sustainable development level of chemical industry enterprises, based on systematizing 16 indicators into four functional blocks—economic, resource-energy, environmental, and institutional directions—and integrating them into a unified integral assessment system.

References.

1. Elkington J. Cannibals with Forks: The Triple Bottom Line of 21st Century Business. – Oxford: Capstone Publishing Ltd. - 402 p.

2. Porter M.E., van der Linde C. Green and Competitive: Ending the Stalemate // Harvard Business Review. – 1995. Vol. 73. - No. 5. – P. 120–134.

3. Decrees and resolutions of the President of the Republic of Uzbekistan on the development of the chemical industry.

4. Abdullaev A. Industrial Economics. – Tashkent: Economics, 2021.

5. Karimov Sh. Chemical industry technologies. – Tashkent: Science and Technology, 2020.

6. Ergashev K. Fundamentals of Resource-Saving Technologies. - Тошкент, 2020.

7. Mirzaev B. Innovative Economy and Industrial Modernization. - Тошкент, 2021.

8. Rasulov T. Energy efficiency and environmental safety. - Самарқанд, 2021.

9. ISO 14001: International Standard for Environmental Management Systems.