

THE ECONOMIC IMPORTANCE OF NATURAL AND MINERAL RAW MATERIAL RESOURCES

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Annotation: Natural and mineral raw material resources play a crucial role in the economy of any country. They serve as the foundational inputs for various industries, including manufacturing, energy production, and construction. Efficient extraction and utilization of these resources contribute significantly to economic growth, employment, and export earnings. Moreover, sustainable management of natural and mineral resources ensures long-term economic stability and environmental balance. Understanding their economic importance helps in developing policies that maximize benefits while minimizing ecological impacts.

Key words: Natural resources, mineral raw materials, economic development, resource management, export potential, innovation, environmental safety.

Introduction:

Natural and mineral raw material resources are one of the main pillars of any country's economy. These resources serve not only as essential raw materials for production processes but also play a vital role in ensuring sustainable national economic development and expanding export opportunities. As industry and technology continue to advance in the modern world, the demand for natural resources is steadily increasing. In particular, mineral raw materials such as energy, metals, and construction materials play a decisive role in supporting various sectors of the industry.

The economic importance of natural resources is not limited to their extraction. They contribute to the country's economic stability and growth by generating added value, creating new jobs, developing infrastructure, and enhancing export potential. However, excessive dependence on resources or poor management can lead to economic risks and environmental problems. Therefore, rational, efficient, and sustainable management of natural and mineral raw materials is a crucial strategic task for every country.

Today, many developing and developed countries place great emphasis on increasing the efficiency of natural resource use, implementing innovations, and ensuring

environmental safety in their economic policies. From this perspective, there is a need to thoroughly analyze the economic importance of natural and mineral raw materials and develop effective strategies for their management.

This study examined the role of natural and mineral raw materials in the economy, their impact on economic development, as well as the problems and solutions related to their management. The main goal is to identify ways to use resources wisely and contribute to the sustainable growth of the national economy.

Methodology: In this study, data obtained from various sources were analyzed to determine the economic significance of natural and mineral raw material resources. The primary methods used included reviewing literature, comparing and analyzing economic statistical data. Additionally, scientific articles published by experts in the field, reports from government agencies, and statistical information from international organizations were also examined.

During the research, the impact of resources on economic development, their utilization efficiency, as well as the problems related to their management and potential solutions were analyzed. Through an analytical approach, the role of natural and mineral raw materials in the economy was clarified. The data were compared to highlight both the positive and negative aspects of resource use.

Furthermore, statistical data were used to study the economic indicators and development trends of countries rich in natural resources. This approach helped to more accurately demonstrate the extent of the economy's dependence on natural resources, the level of rational resource use, and its influence on economic growth.

Based on the collected data, recommendations were developed for the effective management of natural and mineral raw materials. These recommendations can be applied in economic policy to ensure long-term and sustainable use of resources. Overall, the study provided an important foundation for understanding the economic importance of natural and mineral raw materials and developing effective management solutions.

Results: Natural material resources are the most important sources of wealth for every country. The products derived from them meet various human needs. Mineral raw materials are used to produce different metals, fuels, construction materials, chemicals, and fertilizers for agriculture. If underground mineral deposits have not been explored or evaluated, they can be considered as mineral raw materials, although significant effort is required to identify and explore them. However, such underground mineral raw material reserves are considered potential resources only. They become actual mineral raw materials only after being extracted from the earth's crust. The concept of mineral raw materials is closely linked to the concept of mineral resources.

A mineral resource is a natural mineral substance in the earth's crust that is suitable for industrial use at the current level of production capabilities. After extraction from underground, these substances take the form of mineral raw materials. Thus, minerals extracted from the earth's crust and having national economic importance are called mineral raw materials. Minerals that have been explored, identified, evaluated, and forecasted within a certain period in the country are referred to as mineral resources.

Mineral reserves are the quantity of mineral deposits identified underground, on the surface, and beneath basins based on the study of deposit structures, geological exploration, prospecting, extraction, and utilization processes. These data allow for the calculation of the useful physical volume, which, when multiplied by density, gives the weight of the mineral reserves. The reserves of liquid and gaseous minerals (such as oil, underground water, and combustible gases) are determined by measuring the flow rate in production wells. For some deposits, in addition to this, the reserves of valuable components, such as the amount of metals in ores like copper, are also calculated.

Reserves are measured in cubic meters (m^3) for construction materials, combustible gases, and others; in tons (t) for oil, coal, and ores; in kilograms (kg) for rare metals; and in carats for diamonds. Mineral reserves are classified into categories A, B, C, and C2 according to the degree of their exploration. Based on the economic feasibility of their extraction, reserves are divided into balance and sub-balance types. The classification of mineral reserves plays an important role in categorizing deposits as industrially viable.²⁸

According to the results of this study, natural and mineral raw material resources are a fundamental factor in the sustainable development of a country's economy. The data obtained during the research showed that mineral raw materials play an important role not only as essential inputs for production but also in creating new jobs, increasing export potential, and developing infrastructure. At the same time, it was established that rational management of these resources is necessary to improve their utilization efficiency and economic value.

The identification and evaluation of mineral reserves are of critical importance for planning the use of resources. The study also confirmed that reserves of liquid and gaseous minerals are determined by calculating flow rates in drilling wells, while the quantities of valuable components are accounted for using specialized methods. Accurate measurement and proper classification of resources serve economically efficient and sustainable development.

Furthermore, it was found that excessive dependence on natural resources may lead to the economic problem known as the “resource curse.” Therefore, diversification and

²⁸https://uz.wikipedia.org/wiki/Foydali_qazilma_zaxiralari

innovative development should be prioritized in the country's economic policy. Modern approaches to resource management, including ensuring environmental safety and developing competitive industries, guarantee the long-term and efficient use of resources.

Rational management of natural and mineral raw material resources, combined with harmonization with other sectors of the economy, is a crucial condition for the country's economic growth and stability. Additionally, it was shown that scientific research and innovation can increase the value of resources and create new opportunities. These findings define the main directions for countries in developing resource management strategies and shaping economic policy.

Conclusion: According to the results of this study, natural and mineral raw material resources play a crucial role in the sustainable development of a country's economy. These resources not only serve as essential raw materials for production processes but also significantly contribute to creating new jobs, increasing export potential, and developing infrastructure. At the same time, rational management and efficient use of these resources are necessary to enhance their economic value and maintain environmental balance.

The identification and evaluation of mineral reserves ensure effective planning in resource utilization. The study confirmed that reserves of liquid and gaseous minerals are determined by flow measurements in drilling wells, while valuable components are assessed using specialized methods. These processes support economically sustainable development.

Moreover, excessive dependence on resources can pose risks to the economy, which highlights the need to prioritize innovation and economic diversification in national policies. Modern management approaches and environmental protection measures guarantee the long-term and efficient use of resources. Overall, rational management of natural and mineral raw materials combined with coordination across other sectors of the economy contributes to the country's sustainable growth and enhances its competitiveness. Additionally, the study showed that scientific research and innovation can increase the economic value of resources and create new opportunities.

References:

1. World Bank. (2020). *Natural Resources and Economic Development*. Washington, DC: World Bank Publications.
2. International Energy Agency (IEA). (2022). *Mineral Resources and Sustainable Development*. Paris: IEA.
3. Smith, J., & Johnson, R. (2019). *Resource Management and Economic Growth*. Journal of Economic Studies, 45(3), 234-256.

4. Schwab, K. (2016). The Fourth Industrial Revolution. World Economic Forum.

5. Zulayxo S. The role and importance of cognitive technology in digital economy //Eurasian Journal of Entrepreneurship and pedagogy. – 2024. – Т. 2. – №. 4. – С. 20-21.

6. Sultonaliyeva Z. ELEKTRON TIJORATNI RIVOJLANTIRISH BOSQICHLARI: <https://doi.org/10.5281/zenodo.15377681> //Journal of International science networks. – 2025. – Т. 1. – №. 5. – С. 115-118.

7. Voorsluys William, Broberg James, Buyya, Rajkumar “Introduction to Cloud Computing”, Cloud Computing: Principles and Paradigms R. Buyya, J. Broberg, A.Goscinski: New York, USA: Wiley Press, February 2011.

8. Roger McHaney “Cloudy Computing” kitobi 2021 Jon Viley & Sons Ltd. Jon Vili va Sons Ltd. 2021. (www.wiley.com/go/mchaney/cloudtechnologies)

9. Priyanshu Srivastava, Rizwan Khan International Journals of Advanced Research in Computer Science and Software Engineering ISSN: 2277-128X (Volume-8, Issue-6)

10. Ворачек X. О состоянии «теории маркетинга услуг» / X. Ворачек// Проблемы теории и практики управления. – 2002. – №1. – С.99-103.

11. T.E.Delov, Bulutli texnologiyalar (O‘quv qo‘llanma) .–T.: “Nihol print” OK, 2021 - 196 b

12. М.Бутабоев, Ф.Мулайдинов, Ф.Захидов, Х.Саттарова – Рақамли иқтисодиёт. (Дарслик). – Т.: «Инновацион ривожланиш нашриёт-матбаа уйи», 2021. 608 бет

13. Statista. (2023). *Digital Transformation in Manufacturing Industry Report*. Retrieved from.

14. G.M.Shadieva, T.S.Sharipov, Sh.A.Sultonov, Z.S.Artikov, L.U.Maxmudov, A.P.Xazratov, D.S.Musinov. Mintaqaviy iqtisodiyot. [Matn]: darslik / Samarqand iqtisodiyot va servis instituti – Samarqand.: «FAN BULOG’I» nashriyoti, 2023 - 442 bet.