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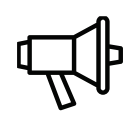


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PROSPECTS FOR THE ESTABLISHMENT AND DEVELOPMENT OF FREE ECONOMIC ZONES IN THE KHOREZM REGION

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Abstract: This article provides a comprehensive analysis of the prospects for establishing and developing free economic zones (FEZs) in the Khorezm region. The study examines the region's resource potential, geographical location, transport and logistics infrastructure, as well as the specific characteristics of the industrial and agricultural sectors. Priority directions for the development of free economic zones are identified with a focus on attracting foreign investment, increasing export potential, and creating new employment opportunities. The research is based on statistical analysis, comparative methods, and a systematic approach. The findings offer practical recommendations aimed at improving the effectiveness of free economic zones in the Khorezm region.

Key words: Khorezm region, free economic zones, regional development, investment climate, industrial zones, export potential, economic growth, regional policy.

Annotatsiya: Mazkur maqolada Xorazm viloyatida erkin iqtisodiy zonalarni (EIZ) tashkil etish va ularni rivojlantirishning ijtimoiy-iqtisodiy istiqbollari tizimli tahlil qilinadi. Tadqiqot jarayonida hududning mavjud resurs salohiyati, geografik joylashuvi, transport-logistika imkoniyatlari, shuningdek, sanoat va qishloq xo'jaligi tarmoqlarining o'ziga xos xususiyatlari asosida erkin iqtisodiy zonalarni rivojlantirishning ustuvor yo'nalishlari aniqlangan. Shuningdek, xorijiy investitsiyalarni jalb etish, eksport salohiyatini oshirish va yangi ish o'rinlarini yaratishda erkin iqtisodiy zonalarning o'rni baholangan. Maqolada statistik ma'lumotlarni tahlil qilish, taqqoslama va tizimli yondashuv usullaridan foydalanilgan bo'lib, tadqiqot natijalari Xorazm viloyatida erkin iqtisodiy zonalar faoliyatini takomillashtirishga qaratilgan amaliy tavsiyalarni ishlab chiqish imkonini beradi.

Kalit so'zlar: Xorazm viloyati, erkin iqtisodiy zonalar, hududiy rivojlanish, investitsiya muhiti, sanoat zonalari, eksport salohiyati, iqtisodiy o'sish, hududiy siyosat.

Аннотация: В статье проводится комплексный анализ перспектив создания и развития свободных экономических зон (СЭЗ) в Хорезмской области. В рамках исследования рассматриваются ресурсный потенциал региона, его географическое положение, транспортно-логистические возможности, а также отраслевые особенности промышленности и сельского хозяйства. Определены приоритетные направления развития свободных экономических зон с учётом привлечения иностранных инвестиций, роста экспортного потенциала и создания новых рабочих мест. В работе использованы методы статистического анализа, сравнительного анализа и системного подхода. Полученные результаты позволяют сформировать практические рекомендации, направленные на совершенствование деятельности свободных экономических зон в Хорезмской области.

Ключевые слова: Хорезмская область, свободные экономические зоны, региональное развитие, инвестиционный климат, промышленные зоны, экспортный потенциал, экономический рост, региональная политика.

INTRODUCTION

In the context of globalization and intensifying economic competition, ensuring the sustainable development of regions has become one of the key priorities of state economic policy. International experience demonstrates that free economic zones (FEZs) serve as an important institutional mechanism for accelerating regional economic growth, attracting investment, and expanding production capacity. Through the establishment of favorable tax, customs, and foreign exchange regimes within FEZs, the necessary conditions are created for industrial development, increasing export volumes, and the introduction of modern technologies at the regional level.

The experience of developing countries shows that free economic zones function not only as drivers of economic growth but also play a significant role in reducing regional disparities, promoting employment, and developing social infrastructure. Therefore, the establishment of free economic zones and the effective management of their activities have become a distinct subject of research within contemporary regional economic theory.

In recent years, the Republic of Uzbekistan has been implementing large-scale reforms aimed at accelerating regional development, improving the investment climate, and diversifying industrial sectors. Within this process, free economic zones have become an important instrument of economic policy and are actively used to enhance regional competitiveness. The FEZs established in the country have yielded tangible results in expanding industrial production, launching the manufacture of high value-added products, and broadening export geography.

The Khorezm region is considered one of the strategically important regions of the republic due to its natural resources, agricultural potential, historical and geographical location, and labor resources. At the same time, the regional economy faces a number of challenges, including insufficient development of industrial production, a high share of raw materials and low value-added products in the export structure, and limited investment activity. These circumstances bring the issue of establishing and developing free economic zones in the Khorezm region to the forefront as an urgent scientific and practical problem.

The development of free economic zones in the Khorezm region would create opportunities to accelerate industrialization processes, form clusters oriented toward deep processing in the agricultural sector, and modernize logistics and transport infrastructure. In particular, attracting foreign investment and facilitating the transfer of modern technologies would contribute to the innovative development of the regional economy.

From this perspective, it is of great importance to conduct an in-depth analysis of the economic foundations for establishing free economic zones in the Khorezm region, to identify existing opportunities and constraining factors, and to scientifically substantiate the mechanisms through which free economic zones influence regional development. This article examines these issues through a systematic approach and evaluates the prospects of free economic zones in ensuring regional economic growth.

The main objective of the article is to analyze the theoretical and practical aspects of establishing and developing free economic zones in the Khorezm region, to identify effective ways of utilizing the region's investment and production potential, and to develop scientifically grounded proposals and recommendations aimed at improving the performance of free economic zones.

LITERATURE REVIEW

The concept of free economic zones (FEZs) has been widely examined in economic development theory as an important institutional mechanism for accelerating regional growth, attracting investment, and enhancing export potential. In the academic literature, free economic zones are primarily analyzed within the frameworks of open economy theory, new economic geography, and regional development theory.

International scholarly studies assess the economic effectiveness of free economic zones using various approaches. Some researchers view FEZs as an efficient tool for attracting foreign direct investment and promoting export-oriented industrial development, while others emphasize that their long-term and sustainable economic impact is directly linked to the quality of the institutional environment and governance. In particular, studies by Aggarwal (2012) and Farole (2011) provide empirical evidence that the success of free economic zones depends on infrastructure development, the simplicity of regulatory mechanisms, and the degree of integration with the local economy.

Within the framework of new economic geography, free economic zones are considered factors that strengthen regional concentration and agglomeration effects. The works of Krugman (1998) and Fujita et al. (2001) indicate that the spatial concentration of industry in specific regions can increase production efficiency while simultaneously intensifying interregional disparities. From this perspective, special attention should be paid to regional balance and socio-economic sustainability when establishing free economic zones.

Empirical studies focusing on developing countries confirm that free economic zones have a positive impact in the short and medium term by increasing employment, expanding industrial output, and stimulating exports. However, long-term effectiveness is largely determined by the extent of technology transfer, cooperation with local enterprises, and the development of human capital (UNCTAD, 2019). Some studies also highlight the risk that free economic zones may remain "economic enclaves" and fail to integrate sufficiently into the national economy.

In the context of Uzbekistan's economy, the development of free economic zones has been examined by domestic scholars within the frameworks of regional development, investment policy, and industrial modernization. Local studies assess FEZs as a significant factor in stimulating regional economic growth and

emphasize their close connection with state support mechanisms. At the same time, several studies point to existing challenges, including inadequate infrastructure, high logistics costs, and low management efficiency within free economic zones.

Scientific research related to the Khorezm region has mainly focused on analyzing its agricultural potential, export structure, and investment activity, while the impact of free economic zones on regional development has not been sufficiently explored. Existing studies are largely oriented toward general macroeconomic indicators, and the mechanisms through which FEZs influence industrial diversification, value-added creation, and innovative development remain under-researched.

Therefore, the analysis of existing literature indicates a clear need for a comprehensive, systematic, and empirical study of the establishment and development of free economic zones in the Khorezm region. This article aims to fill this research gap by providing an in-depth analysis of the interrelationship between regional development and free economic zones.

RESEARCH METHODOLOGY

This study is aimed at assessing the establishment of free economic zones (FEZs) in the Khorezm region and evaluating their prospects for sustainable development. A comprehensive and systematic approach was employed, utilizing various economic analysis methods. The research methodology encompasses both theoretical and practical stages and focuses on identifying the interrelationships between regional economic development, the investment environment, and institutional mechanisms.

The theoretical foundation of the study is based on concepts from regional economics, free economic zone theory, investment attraction models, and theories of regional economic growth. In particular, growth pole theory, new economic geography approaches, and institutional economics concepts were applied as methodological frameworks. These approaches enabled a deeper analysis of the impact of free economic zones on regional development.

During the research process, the following general scientific and specialized economic research methods were applied:

- Analysis and synthesis methods were used to examine and generalize the socio-economic indicators, investment flows, and industrial development indicators of the Khorezm region.
- Comparative analysis was applied to compare the performance of existing and prospective free economic zones in the Khorezm region with FEZs in other regions.
- Statistical analysis methods were used to evaluate the dynamics of investment, export volumes, employment levels, and gross regional product (GRP) based on time series data, growth rates, and relative indicators.
- Econometric modeling was employed to identify the impact of key factors influencing FEZ development—such as investment, industrial output, exports, and employment—on regional economic growth using regression models.
- Graphical and diagrammatic methods were applied to visually present the results and enhance the clarity and accuracy of the analysis.

The information base of the study consists of official data from the State Statistics Committee of the Republic of Uzbekistan, the Ministry of Economy and Finance, official reports on investment, industry, and trade, as well as open data from international organizations and research institutions. In addition, scientific articles, monographs, and regulatory legal documents relevant to the subject area were extensively used.

The research was conducted in several sequential stages. Initially, theoretical perspectives and academic literature on the development of free economic zones were reviewed. At the next stage, the socio-economic conditions and investment potential of the Khorezm region were analyzed based on statistical data. In the final stage, the findings were synthesized, and practical conclusions and recommendations for the development of free economic zones in the Khorezm region were formulated.

The selected methodological approach ensures the scientific validity and practical relevance of the research results and enables a comprehensive assessment of the prospects for establishing and developing free economic zones in the Khorezm region. This methodology may also be effectively applied in future studies aimed at improving regional economic policy.

ANALYSIS AND RESULTS

Recent socio-economic development indicators of the Khorezm region demonstrate the presence of economic growth; however, this growth is mainly driven by agriculture and sectors with low value added. According to official statistical data, while the gross regional product (GRP) of the region has been increasing year by year, the share of industrial production in GRP remains below the national average (Table 1).

Table 1. Key Macroeconomic Indicators of the Khorezm Region (2018–2024)¹

Indicators	2018	2020	2022	2024
GRP (billion UZS)	18,900	26,400	39,200	52,800
Share of industry (%)	18.4	19.1	20.3	21.0
Share of agriculture (%)	38.7	36.5	34.2	32.8
GRP per capita (thousand UZS)	9,200	12,400	17,600	22,900

As shown in Table 1, the share of industry has been increasing at a relatively slow pace. This indicates the need to accelerate industrialization processes and to enhance the spatial concentration of production in the Khorezm region. At this point, free economic zones play a crucial role as a catalyst for industrial development.

One of the key factors of regional economic development is investment activity. Although the volume of investments in the Khorezm region has been increasing, a significant portion is directed toward infrastructure and traditional sectors. In areas where free economic zones operate, however, a relatively higher share of investments is allocated to industrial and processing sectors (Table 2).

Table 2. Volume and Structure of Investments in the Khorezm Region (2019–2024)²

Year	Total investment (billion UZS)	Industry (%)	Agriculture (%)	Services (%)
2019	5,200	32	41	27
2021	7,900	35	38	27
2023	11,600	39	34	27
2024	13,800	42	31	27

The growing share of industrial investment represents a positive trend and enhances opportunities for locating high-technology production through the expansion of free economic zones. At the same time, investment efficiency is directly linked to the quality of the institutional environment created within FEZs.

Exports of the Khorezm region are largely composed of cotton fiber, textile products, and agricultural raw materials, indicating insufficient diversification of the export structure. Within free economic zones, the development of processing industries creates opportunities to increase exports of high value-added products (Table 3).

Table 3. Export Volume and Structure of the Khorezm Region (2018–2024)³

Year	Export volume (million USD)	Raw materials (%)	Processed products (%)
2018	145	62	38
2020	168	59	41
2022	235	53	47
2024	310	47	53

The increasing share of processed products reflects the positive impact of free economic zone activities. Nevertheless, to further accelerate this process, it is necessary to implement technological modernization, develop logistics infrastructure, and strengthen export support mechanisms.

Free economic zones also play an important socio-economic role by increasing employment and household incomes in the regions. In the Khorezm region, the creation of new jobs as a result of FEZ activities has had a positive impact on the labor market. The conducted analysis indicates that the development of free economic zones in the Khorezm region contributes significantly to accelerating regional economic growth, increasing investment inflows, and diversifying the export structure. However, to fully realize the potential of free economic zones, it is essential to deepen their integration with the local economy, improve logistics and infrastructure, and enhance management efficiency.

The conducted statistical analyses indicate that in recent years the Khorezm region has experienced quantitatively positive economic growth rates. However, a qualitative examination of this growth reveals that agriculture and low-technology production sectors continue to dominate the economic structure. This situation

1 Xorazm viloyati stat.uz ma'lumotlari asosida muallif ishlanmasi

2 Xorazm viloyati stat.uz ma'lumotlari asosida muallif ishlanmasi

3 Xorazm viloyati stat.uz ma'lumotlari asosida muallif ishlanmasi

increases the vulnerability of the regional economy to external shocks and limits opportunities for long-term sustainable development.

The gradual increase in the share of industry within the gross regional product (GRP) suggests that existing production capacities are insufficient to fundamentally transform the regional economy. At this juncture, free economic zones emerge as an institutional platform capable of accelerating industrialization processes. Through free economic zones, opportunities expand for spatial concentration of production, the formation of technological value chains, and the creation of higher value added.

The steady growth in investment volumes in the Khorezm region reflects an increase in regional economic attractiveness. Nevertheless, an analysis of the sectoral and territorial distribution of investments shows that a significant portion is directed toward infrastructure and traditional sectors. While this allocation may ensure short-term economic returns, it does not provide sufficient impetus for long-term innovative development.

In areas where free economic zones operate, a noticeable shift in the structure of investments can be observed. In particular, the growing share of investments directed toward industrial and processing sectors indicates that free economic zones function as a mechanism for redirecting investment flows. At the same time, investment efficiency should be assessed not only in terms of volume, but also through indicators such as technological level, production cooperation, and export orientation.

The analysis shows that if investment policy within free economic zones is oriented toward deep processing of local raw materials, the multiplicative effects within the regional economy can be significantly strengthened. Otherwise, there is a risk that investments will be limited to local employment creation and short-term growth.

Export structure is an important indicator of the level of regional economic development. Although export volumes in the Khorezm region have increased, the share of raw materials and minimally processed products has remained high for a long time. This has constrained the region's position within global value chains.

As a result of free economic zone activities, a gradual increase in the share of processed products in exports has been observed. Analysis of this process suggests that free economic zones operate as an indirect rather than a direct mechanism of export diversification. Specifically, free economic zones strengthen export potential by facilitating technological modernization and improving production culture. At the same time, ensuring sustainable export growth requires the development of logistics infrastructure within free economic zones, reduction of transport costs, and strengthening institutional support for access to foreign markets. Otherwise, even with increased production volumes, export efficiency may remain below expectations.

The social impact of free economic zones is primarily manifested through employment and household incomes. In the Khorezm region, the growth in the number of jobs created within free economic zones has led to positive changes in the regional labor market. However, the quality of these jobs—particularly skill requirements, labor productivity, and wage levels—requires separate and detailed analysis.

The findings indicate that as production within free economic zones becomes more technologically advanced, labor productivity and average wage levels increase. This demonstrates that free economic zones are significant not only as mechanisms for job creation, but also as instruments for human capital development. At the same time, shortages of skilled labor remain one of the key constraints on the further development of free economic zones.

The generalized analysis shows that the development of free economic zones in the Khorezm region is an important, yet insufficient, condition for accelerating regional economic growth. Free economic zones do not automatically ensure economic transformation; rather, they yield high results only when supported by an effective institutional environment, a well-designed investment policy, and deep integration with the local economy. From this perspective, strategies for developing free economic zones should be aligned with the overall socio-economic development strategy of the region. Only under such an approach can free economic zones in the Khorezm region become a real economic mechanism that ensures sustainable growth, export diversification, and social well-being.

The research findings confirm that the development of free economic zones in the Khorezm region plays an important role in accelerating regional economic growth. However, this impact is neither uniform nor automatic; instead, it is directly influenced by a range of institutional, sectoral, and territorial factors. This conclusion is consistent with findings in international academic literature and underscores the need for a contextual approach to assessing the effectiveness of free economic zones.

Although the results show a gradual increase in the share of industrial production within GRP, this growth has not yet reached a level sufficient to ensure fundamental structural transformation of the regional economy. This supports the theoretical conclusion emphasized by Farole and UNCTAD that “free economic zones are catalysts of growth, but not sufficient conditions for structural transformation.” In the case of the Khorezm region, while free economic zones stimulate economic growth, their integration with local production chains remains incomplete.

Analysis of investment flows indicates that although capital inflows are relatively higher and more industry-oriented in areas with free economic zones, the technological quality and innovative content of investments remain key challenges. This once again confirms Aggarwal's argument that "it is not the volume of investment, but the quality of investment that is decisive." Accordingly, investment policy within free economic zones in the Khorezm region should be oriented toward high-technology and export-oriented production.

Changes in export structure represent one of the most tangible outcomes of free economic zone activities. The increasing share of processed products indicates the gradual integration of the regional economy into global value chains. At the same time, the export diversification process remains insufficiently deep. As emphasized by Krugman and within the framework of new economic geography theory, production concentration may generate positive agglomeration effects, but without adequate logistics and market infrastructure, it may fail to deliver the expected outcomes.

From the perspective of employment and social impact, the results confirm the role of free economic zones in job creation within the region. However, the study shows that growth in the number of jobs is not always accompanied by improvements in job quality. Under conditions where low- and medium-technology production dominates, growth in labor productivity and real incomes remains limited. This highlights the need to align free economic zone development with policies aimed at human capital development.

The findings also demonstrate that free economic zones in the Khorezm region are not independent drivers of regional development, but function effectively as components of a comprehensive economic policy. If developed in isolation from the broader regional development strategy, there is a risk that free economic zones may evolve into "economic enclaves." Conversely, aligning them with transport and logistics infrastructure, workforce training systems, and cooperation with local businesses can significantly enhance their economic effectiveness.

Overall, the discussion results indicate the need to shift policy on free economic zone development in the Khorezm region from quantitative expansion toward qualitative deepening. This requires reinterpreting free economic zones not merely as instruments for attracting investment and creating employment, but as strategic institutions of regional economic transformation.

CONCLUSIONS AND RECOMMENDATIONS

The impact of establishing and developing free economic zones (FEZs) in the Khorezm region on regional socio-economic development was analyzed using a comprehensive and systematic approach. The theoretical and empirical analyses conducted confirm that free economic zones represent an important institutional mechanism for stimulating regional economic growth. At the same time, the research findings demonstrate that the effectiveness of free economic zones does not emerge automatically, but is directly dependent on their institutional design, sectoral orientation, and degree of integration with the regional economy.

An analysis of the economic development indicators of the Khorezm region revealed that economic growth in the region has largely been quantitative in nature. Although the increase in gross regional product (GRP) represents a positive trend, the continued dominance of agriculture and low-technology sectors in the economic structure has emerged as a key constraint on sustainable and competitive regional development. This situation substantiates the need to accelerate industrialization and structural transformation processes through the development of free economic zones in the Khorezm region.

The analysis of investment processes indicates that, despite growing investment activity in recent years, the qualitative composition and technological orientation of investments in the Khorezm region remain insufficient. In areas where free economic zones operate, the share of investments directed toward industrial and processing sectors is relatively higher, confirming the important role of FEZs in redirecting investment flows. However, to ensure long-term investment efficiency, it is essential to channel investments into high-technology, export-oriented, and innovative production activities.

An examination of export indicators shows that free economic zones play a positive role in diversifying the export structure of the Khorezm region. The increasing share of processed products indicates a strengthening integration of the regional economy into global value chains. Nevertheless, the persistently high share of raw materials in exports underscores the need for deeper export diversification. In this context, free economic zones can serve as a key platform for developing export-oriented clusters and industrial cooperation.

The analysis of employment and social impacts confirms the importance of free economic zones in creating new jobs within the region. However, the quality of newly created jobs—particularly in terms of labor productivity, skill requirements, and qualification levels—has emerged as a critical criterion for evaluating FEZ effectiveness. The research findings indicate that policies aimed at developing free economic zones should be closely aligned with human capital development, vocational education, and workforce training systems. Otherwise, quantitative growth in employment may not fully translate into qualitative improvements in social welfare.

One of the key conclusions of this study is that free economic zones in the Khorezm region should not be viewed as independent or sole drivers of regional development, but rather as integral components of a comprehensive regional economic policy. Free economic zones can achieve high economic efficiency only when deeply integrated with transport and logistics infrastructure, innovation ecosystems, financial institutions, and local entrepreneurial entities. Otherwise, there is a risk that free economic zones may evolve into isolated economic areas with limited spillover effects on the regional economy.

Overall, the research results substantiate the need to shift the strategy for developing free economic zones in the Khorezm region from quantitative expansion toward qualitative deepening. This requires reinterpreting free economic zones not merely as instruments for attracting investment and generating employment, but as strategic institutions aimed at creating high value added, fostering innovative development, and enhancing regional competitiveness. The conclusions of this study provide a solid theoretical and practical foundation for improving state and regional policies on the development of free economic zones in the Khorezm region, as well as for guiding future academic research in this field.

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