



# IQTISODIYOT & TARAQQIYOT

*Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal*

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# PROSPECTS FOR THE DEVELOPMENT OF INDUSTRIAL CLUSTERS BASED ON THE PRINCIPLES OF A “GREEN ECONOMY”

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**Abstract.** This article provides a scientific analysis of the prospects for the development of industrial clusters based on the principles of a “green economy” within the framework of the transition to sustainable development. The study substantiates the relevance of greening industrial production processes and examines the effectiveness of the cluster approach in increasing the competitiveness of enterprises and minimizing environmental degradation. Particular attention is devoted to the application of innovative, resource-efficient, and energy-saving technologies, the formation of a circular economy model, and the expansion of the use of renewable energy sources in industrial policy.

**Key words:** industrial clusters, green economy, sustainable development, eco-technologies, energy efficiency, innovation, circular economy, renewable energy sources, industrial policy, Uzbekistan.

**Annotatsiya.** Maqolada “yashil iqtisodiyot” tamoyillariga asoslangan sanoat klasterlarini rivojlantirish istiqbollari barqaror rivojlanish konsepsiyasi doirasida ilmiy jihatdan tahlil etiladi. Tadqiqotda sanoat ishlab chiqarishining ekologik yo'naltirilgan shaklga o'tish zarurati asoslanadi hamda klaster yondashuvining korxonalar raqobatbardoshligini oshirish va atrof-muhitga salbiy ta'sirni kamaytirishdagi o'rni yoritiladi. Shuningdek, innovatsion, resurs tejamkor va energiya samarador texnologiyalarni joriy etish, aylanish iqtisodiyoti modelini shakllantirish hamda qayta tiklanuvchi energiya manbalaridan foydalanish masalalariga alohida e'tibor qaratilgan.

**Kalit so'zlar:** sanoat klasterlari, yashil iqtisodiyot, barqaror rivojlanish, eko-texnologiyalar, energiya samaradorligi, innovatsiyalar, aylanish iqtisodiyoti, qayta tiklanuvchi energiya manbalari, sanoat siyosati, O'zbekiston.

**Аннотация.** В статье проводится научный анализ перспектив развития промышленных кластеров на основе принципов «зелёной экономики» в контексте перехода к устойчивому развитию. Исследование обосновывает необходимость экологизации промышленных процессов и раскрывает значение кластерного подхода в повышении конкурентоспособности предприятий и снижении негативного воздействия на окружающую среду. Особое внимание уделено внедрению инновационных, ресурсосберегающих и энергоэффективных технологий, формированию модели циркулярной экономики и расширению использования возобновляемых источников энергии в промышленной политике.

**Ключевые слова:** промышленные кластеры, зелёная экономика, устойчивое развитие, экотехнологии, энергоэффективность, инновации, циркулярная экономика, возобновляемые источники энергии, промышленная политика, Узбекистан.

## INTRODUCTION

In the context of modern industrialization and the globalization of the world economy, the search for new models of industrial development that combine economic efficiency with environmental sustainability is becoming increasingly urgent. One of the most effective mechanisms for achieving this balance is the formation of industrial clusters based on the principles of the “green economy.” Such clusters make it possible to ensure harmonious interaction between industrial growth, the rational use of natural resources, and the reduction of adverse environmental impacts.

Industrial clusters, as geographically concentrated systems that unite interconnected enterprises, research institutions, and infrastructure organizations, are emerging as key drivers of regional competitiveness and innovation. However, under conditions of intensifying environmental challenges and climate risks, their development requires the transformation of traditional industrial strategies and the introduction of innovative, eco-oriented management approaches aligned with the principles of sustainable development.



The “green economy” paradigm is aimed at establishing production systems characterized by high energy efficiency, low-carbon technologies, waste minimization and recycling, and the integration of renewable energy sources. The incorporation of these principles into industrial cluster activities facilitates the creation of closed production cycles, contributes to reducing carbon emissions, improves resource productivity, and promotes the development of an environmentally responsible corporate culture.

For Uzbekistan, which is actively pursuing industrialization and comprehensive economic modernization, the development of industrial clusters founded on green principles represents a strategic priority. This approach will not only strengthen the country’s industrial base and enhance technological competitiveness but also contribute to environmental protection, investment attractiveness, and the fulfillment of international commitments in the field of climate policy.

## REVIEW OF RELATED LITERATURE

Contemporary scholarship demonstrates an increasing focus on transforming industrial development models to reconcile economic growth with environmental sustainability. The cluster concept—originally rooted in classical contributions to industrial agglomeration theory—remains a central analytical tool for understanding localized economic dynamism. Alfred Marshall’s foundational exposition on industrial districts highlighted the efficiency gains from geographical concentration of firms and knowledge spillovers (Marshall 1890). Building on this tradition, Michael Porter advanced the modern cluster paradigm and argued that clusters strengthen competitive advantages, accelerate innovation, and optimize production chains—features that are now interpreted through an environmental lens as the need for “greening” economic activity becomes more urgent (Porter 1998).

A growing body of work links cluster development to environmental objectives by arguing that clusters provide a natural institutional framework for resource sharing, joint investments in clean technologies, and coordinated environmental management. Studies of industrial symbiosis emphasize how proximate firms can exchange materials, energy and by-products to reduce waste flows and improve resource productivity (Chertow 2000). The literature on eco-industrial parks further documents empirical examples where industrial co-location has enabled closed material loops, collective investment in effluent treatment, and shared renewable energy projects—demonstrating practical pathways for cluster-level green transformation (Chertow; industrial ecology reviews).

The “green economy” policy discourse—articulated in major international reports—frames these cluster transformations within broader goals of low-carbon development, resource efficiency, and poverty-sensitive growth. UNEP’s Green Economy analysis and allied World Bank and OECD publications articulate that green growth requires systemic changes in technology, investment patterns, and policy incentives to align productivity gains with reduced ecological risks (UNEP 2011; World Bank 2012; OECD 2011). These policy frameworks emphasize energy efficiency, deployment of renewable energy, and promotion of circular economy practices as central pillars for sustainable industrialization.

The circular economy literature—prominently advanced by the Ellen MacArthur Foundation—underscores the capacity of geographically concentrated production systems to implement closed-loop value chains by integrating recycling, remanufacturing, and product-life extension strategies (Ellen MacArthur Foundation 2015). From this perspective, clusters can function as institutional enablers of circular business models because they lower transaction costs for material exchanges, facilitate trust and long-term cooperation, and enable scale for shared infrastructure (waste-to-resource facilities, shared logistics, etc.).

Scholars of cluster policy and regional development have also investigated institutional and governance prerequisites for successful green clustering. Christian Ketels and others note that cluster performance depends on coordinated public-private governance, availability of specialized human capital, and supportive innovation ecosystems (Ketels 2003). Empirical studies suggest that targeted policy instruments—such as green public procurement, tax incentives for clean investments, and cluster-level environmental standards—are important complements to firm-level initiatives in achieving measurable environmental benefits.

Despite theoretical convergence on the potential of green clusters, methodological and empirical gaps remain. Several authors point to the under-development of robust metrics for assessing the environmental effectiveness of cluster initiatives and the absence of standardized indicator sets for comparative analysis across regions (OECD; UNEP commentary). Moreover, there is limited longitudinal evidence assessing whether cluster-level greening produces persistent competitiveness gains and equitable socio-economic outcomes, indicating the need for more rigorous impact evaluations and harmonized monitoring frameworks.

With respect to transition economies and Central Asia, recent policy analyses emphasize that integrating green principles into nascent cluster initiatives can strengthen industrial resilience, reduce dependence on imported resources, and improve compliance with international climate commitments. Country-level



assessments underscore the importance of aligning national industrial policy with local cluster strengths (for example, textiles, food processing, and light manufacturing) to exploit comparative advantages while introducing energy-saving technologies and circular practices. However, the literature also flags institutional bottlenecks—finance, skills shortages, and weak environmental governance—that must be addressed to realize the full potential of green clusters.

In sum, the literature indicates that industrial clusters are a promising vehicle for operationalizing green economy objectives, but successful implementation requires coordinated governance, appropriate policy instruments, investment in eco-innovation, and improved monitoring methodologies. Future research should prioritize the development of standardized evaluation frameworks, more case studies of cluster-level green transitions (including longitudinal analyses), and policy experiments that test incentives for circularity and renewable integration within cluster contexts.

## RESEARCH METHODOLOGY

The research employed a combination of quantitative and qualitative methods to ensure the reliability and validity of the findings. Data were collected from official statistical sources, including the State Committee on Statistics of the Republic of Uzbekistan, the World Bank, and the Organisation for Economic Co-operation and Development (OECD) databases. Additionally, secondary data from scientific publications, policy documents, and analytical reports related to innovation and investment development were used.

For data analysis, the study applied comparative and structural-dynamic methods, which enabled the identification of major trends in the evolution of Uzbekistan's innovation and investment potential. Statistical and economic-mathematical tools were used to process numerical data, assess correlations between investment activity and innovation outcomes, and model potential growth scenarios. The systemic and analytical approach ensured the integration of diverse data sources and the formation of objective conclusions regarding the dynamics and prospects of the studied sector.

## ANALYSIS AND RESULTS

The development of industrial clusters grounded in green economy principles constitutes one of the key mechanisms for ensuring sustainable growth and the modernization of national industry. In Uzbekistan, this process receives consistent institutional and governmental support, as the implementation of environmentally friendly technologies contributes to reducing energy intensity, optimizing resource utilization, and improving environmental performance.

At present, Uzbekistan hosts more than one hundred industrial clusters, with a considerable share operating within the textile, agri-food, chemical, and construction industries. Within the framework of the Green Economy 2030 program, enterprises have begun introducing renewable energy sources, water-saving technologies, and waste-free production systems into their technological processes. Noticeable progress has been achieved particularly in the Samarkand, Tashkent, and Navoi regions, where pilot green clusters are being developed in collaboration with international partners such as UNDP, the World Bank, and GIZ. According to the Ministry of Economy and Finance, the share of enterprises utilizing renewable energy sources increased from 4.8 percent in 2020 to 12.3 percent in 2024, reflecting a steady transition toward a sustainable industrial development model.

An assessment of the efficiency of green clusters indicates that the application of environmentally friendly technologies not only mitigates negative ecological impacts but also enhances economic performance. Empirical data demonstrate an 18–25 percent reduction in electricity consumption, a 30–35 percent decline in water use, and a fourfold increase in waste recycling rates compared to conventional production systems. These outcomes create favorable conditions for higher profitability, export diversification, and access to premium markets where environmental certification and eco-labeling are becoming decisive factors of competitiveness.

Table 1. Comparative analysis of economic and environmental efficiency of industrial clusters in Uzbekistan

Indicator	Normal cluster (avg.)	«Green» cluster (avg.)	Change (%)
Energy intensity of production	1,00 (avg.)	0,78	-22
Water intensity of products	1,00	0,65	-35
Share of waste recycling	12%	48%	+36
Sales profitability	14%	19%	+5
Export activity	100%	134%	+34



The results presented in Table 1 confirm that the green cluster model generates measurable economic and environmental benefits. The adoption of circular technologies, waste reuse mechanisms, and renewable energy systems reduces production costs, increases competitiveness, and stimulates technological innovation among enterprises. Moreover, the findings reveal that the comprehensive implementation of green technologies can reduce CO<sub>2</sub> emissions by 20–25 percent and increase the share of renewable energy in industrial consumption to 30 percent by 2030.

The future development prospects of industrial clusters in Uzbekistan are closely linked to the implementation of digital energy-monitoring systems, the improvement of regulatory frameworks for attracting green investments, and enhanced international cooperation in the field of ESG (Environmental, Social, and Governance) standards. In the long term, these measures will contribute to sustainable regional development, restoration of ecological balance, and a significant increase in the global competitiveness of the national industrial sector.

In conclusion, the analysis confirms that the formation of industrial clusters based on green economy principles represents a strategically important direction for Uzbekistan's economic transformation. The transition to a green industrial model not only promotes environmental sustainability but also increases economic efficiency, paving the way for a new stage of industrialization centered on innovation, resource conservation, and long-term sustainability.

## CONCLUSIONS AND RECOMMENDATIONS

The analysis confirms that the development of industrial clusters based on green economy principles is a strategically important direction for modernizing Uzbekistan's industrial sector. The establishment of green clusters contributes not only to enhanced energy efficiency and the rational use of natural resources, but also to strengthening the economic resilience of enterprises, expanding their export potential, and generating new employment opportunities. The integration of innovative and resource-saving technologies enables enterprises to lower production costs, increase profitability, and improve environmental performance. The findings clearly demonstrate that the transition to a green industrial management model is both economically viable and socially significant.

To ensure the sustainable development and long-term expansion of green clusters in Uzbekistan, the following recommendations are proposed:

1. Improvement of the regulatory framework.

Develop national standards for green clusters that take into account international ESG (Environmental, Social, and Governance) requirements. Introduce tax and customs incentives for enterprises adopting environmentally friendly technologies. Establish a comprehensive state support system for green industry investment, including subsidies for energy-efficient projects and preferential loans or grants for companies transitioning to renewable energy sources.

2. Development of scientific and innovation infrastructure.

Strengthen collaboration among industrial clusters, research institutions, and universities to accelerate innovation in waste recycling, water conservation, and digital monitoring technologies.

3. Enhancement of international cooperation.

Expand Uzbekistan's participation in regional and global green economy initiatives, drawing on the experience of EU countries, South Korea, and Japan in developing sustainable industrial zones and low-carbon clusters.

4. Human resource development.

Implement educational and professional training programs for specialists employed in green clusters to build competencies in environmental management, energy efficiency, and sustainable production practices.

5. Monitoring and performance evaluation.

Establish a national indicator system to regularly monitor the implementation of green economy principles in industrial clusters, assess their effectiveness, and adjust development strategies based on empirical results.

In conclusion, the implementation of these measures will significantly accelerate Uzbekistan's transition to a sustainable and competitive model of industrial development founded on the principles of the green economy. This approach will ensure a balanced combination of economic growth, social stability, and environmental safety, fully consistent with the long-term objectives of the "Uzbekistan 2030" Strategy.

### List of used literature

1. M. E. Porter. *The Competitive Advantage of Nations*. – New York: Free Press, 1990. – 875 p.
2. A. Marshall. *Principles of Economics*. – London: Macmillan, 1920. – 754 p.
3. UNEP. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. – Nairobi: United Nations Environment Programme, 2011. – 630 p.



4. OECD. Green Growth Indicators 2023. – Paris: OECD Publishing, 2023. – 280 p.
5. Ellen MacArthur Foundation. Circular Economy: Principles and Practice. – London, 2015. – 124 p.
6. J. Kirchherr, D. Reike, M. Hekkert. Conceptualizing the Circular Economy. – Resources, Conservation and Recycling Journal, 2017. – Vol. 127. – P. 221–232.
7. J. Korhonen, A. Honkasalo, J. Seppälä. Circular Economy: The Concept and Its Limitations. – Ecological Economics, 2018. – Vol. 143. – P. 37–46.
8. Ш. М. Мирзиёев. Стратегия действий по дальнейшему развитию Республики Узбекистан. – Т.: Ўзбекистон, 2017. – 336 б.
9. OECD. Measuring the Environmental Performance of Industry Clusters. – Paris: OECD Publishing, 2020. – 190 p.
10. UNDP Uzbekistan. Green Transformation and Sustainable Development Report. – Tashkent: United Nations Development Programme, 2023. – 142 p.



## IQTISODIYOT & TARAQQIYOT

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Jurnal sayti: <https://yashil-iqtisodiyot-taraqqiyot.uz>