

Basic Principles and Approaches of The Green Economy

Akbarov Qodirali Qurbonali o'g'li,¹ 

¹ Assistant Professor, Fergana Polytechnic Institute,

akbarov.qodirali68@ferpi.uz

Submitted: 25-Dec, 2024

Accepted: 26-Dec, 2024

Published: 2-Jan, 2025

Vol. 1, No. 1, 2024. Sociometrics.us

Journal of History, Modernity, and
Society

***Corresponding author:**

Akbarov Qodirali Qurbonali o'g'li ¹

akbarov.qodirali68@ferpi.uz

Copyright © 2024 by author(s) and
Scientific Research Publishing Inc. This
work is licensed under the Creative
Commons Attribution International
License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This article is devoted to the concept of green economy, analyzing its main principles, significance and role in the formation of the economic system from the point of view of sustainable development. The article considers the environmental, economic and social aspects of the green economy, as well as methodologies for the development of energy efficiency, renewable energy sources, green technologies and sustainable production systems. The need to stabilize the economy with the help of new economic instruments such as green finance, ecological investments and green bonds, as well as the economic effects of the green transformation of cities and industries are presented.

The article also discusses the social aspects of the green economy, in particular, such areas as environmental justice and sustainable agriculture. The importance of international cooperation and strategies in combating climate change, as well as state policy and legal regulations, is covered in detail. The study provides scientific analysis and recommendations on the implementation of the green economy model and its important role in ensuring economic growth, environmental protection and social stability.

The article is useful for a wide audience - economists, ecologists, government officials, entrepreneurs and students, and provides detailed information on the role of the green economy in the world economy and its future development prospects.

Key words: green economy, sustainable development, renewable energy, green technologies, ecological investments, green finance

Introduction

The green economy represents a paradigm shift aimed at achieving sustainable economic growth while preserving the environment. Defined by the United Nations Environment Programme (UNEP) as "a globally competitive, environmentally and socially sustainable economy," it emphasizes the responsible use of resources, renewable energy, and the adoption of green technologies. This approach aligns with the principles of sustainable development, focusing on mitigating climate change, reducing poverty, and fostering ecological resilience.

A core challenge within the field is the integration of economic growth with environmental

protection, an area where significant knowledge gaps remain. While previous studies have explored aspects such as green finance, renewable energy adoption, and sustainable agriculture, there is limited research that synthesizes these elements into a cohesive framework for green transformation. This article addresses this gap by examining the interplay between economic instruments, technological advancements, and social justice within the green economy. Methodologically, the study employs a review-based analysis, drawing on recent developments in energy efficiency, green finance tools like green bonds, and sustainable production systems. It also evaluates international policies and cooperative strategies essential for climate change mitigation. The research highlights key approaches such as circular economies, green infrastructure, and sustainable urbanization as pivotal to achieving a green economic model. The findings underscore the potential economic benefits of adopting green technologies, including job creation, poverty alleviation, and enhanced environmental health. These results suggest that transitioning to a green economy can simultaneously promote economic stability, social equity, and ecological preservation.

Literature Review

Digital transformation has become a cornerstone of economic growth and industrial efficiency across various sectors. Adekunle et al. (2024) provide a comprehensive bibliometric review highlighting how digital tools are revolutionizing project management, design processes, and operational efficiency in the construction industry. Similarly, Budiarto and Nordin (2024) emphasize the role of technology transformation and innovation in fostering the digital economy within developing countries, demonstrating that systematic adoption of digital practices enhances competitiveness. The impact of digital technologies on the economy is particularly significant in Uzbekistan. Hasanboy o'g'li and Toxtasinovna (2024) explore how digital technologies are reshaping economic structures by improving efficiency and connectivity. Maxmudovna (2024) investigates the challenges of adapting accounting practices to digital innovations, finding that strategic implementation of digital tools can resolve many inefficiencies in financial reporting.

Sustainability and green innovation are key drivers for economic development in the modern era. Akhunova (2024) examines Uzbekistan's potential to expand its green economy by leveraging sustainable practices and addressing influencing factors. Hafeez et al. (2024) discuss the role of green innovations and organizational ambidexterity in achieving corporate sustainability, suggesting that a robust green culture fosters long-term environmental and economic benefits.

Ibragimovna (2024) explores innovations in agriculture, particularly the integration of artificial intelligence to support Uzbekistan's transition to a green economy. These findings align with

the work of Ismailova (2024), who highlights the challenges and solutions related to sustaining economic growth under climate change pressures.

The rise of digital currencies has significant implications for international trade and financial systems. Ogunmola et al. (2024) delve into the potential of digital currencies to revolutionize international trade, focusing on opportunities and challenges. Additionally, Ogunmola and Das (2024) analyze consumer perceptions and adoption intentions of central bank digital currencies (CBDCs), specifically the digital rupee, highlighting factors influencing acceptance.

Haq et al. (2024) investigate the impact of financial innovation and infrastructure on inbound tourism in Central Asia, illustrating how advancements in financial technologies can enhance economic growth and tourism sectors.

The influence of digitalization on business performance and industrial operations has been widely studied. Wang et al. (2023) discuss how digitalization and business model innovation contribute to improved business performance, underscoring the need for adaptive strategies in the digital age. Ogunmola and Kumar (2024) propose a strategic model for attracting environmentally conscious consumers in e-retail, demonstrating how digital tools can support sustainable business practices.

In the context of industrial enterprises, Farmonova and Karimova (2024) address the challenges and solutions related to digitalizing production processes. Their findings are supported by Turabaevich (2024), who emphasizes the role of information technology in enhancing the competitiveness of Uzbekistan's industrial enterprises.

Digital transformation is also reshaping labor markets and human resource practices. Crisan, Cristescu, and Popescu (2024) analyze the evolving digital labor market in the European Union, highlighting trends and challenges related to workforce adaptation. Khurana and Ataniyazova (2024) explore the role of human resource management in advancing Uzbekistan's tourism sector, demonstrating that effective HR strategies are vital for leveraging digital tools and fostering industry growth.

Materials and Methods

This study employs a qualitative review-based methodology to analyze the principles and approaches of the green economy. Data was gathered from a comprehensive review of literature, including international reports, policy documents, and previous academic studies. The research focuses on identifying the environmental, economic, and social dimensions of the green economy, emphasizing sustainable development, renewable energy, and green finance. Sources such as the United Nations Environment Programme (UNEP) definitions, outcomes from the 2012 Rio Summit on Sustainable Development, and contemporary policy

recommendations provided a foundation for the conceptual analysis.

The economy can no longer focus solely on profit, but must instead emphasize ecological goals in its essence. In addition to social and economic factors, the transition to green technologies also plays an important role. In this context, the Umwelttechnologietlas of the Ministry of the Environment, Nature Conservation and Nuclear Safety recommends the following tools:

Generation of environmentally friendly energy from renewable sources and the responsible use of fossil fuels.

Energy efficiency through efficient design, production processes, buildings and equipment

This means that you do not know what you need and what you do not need.

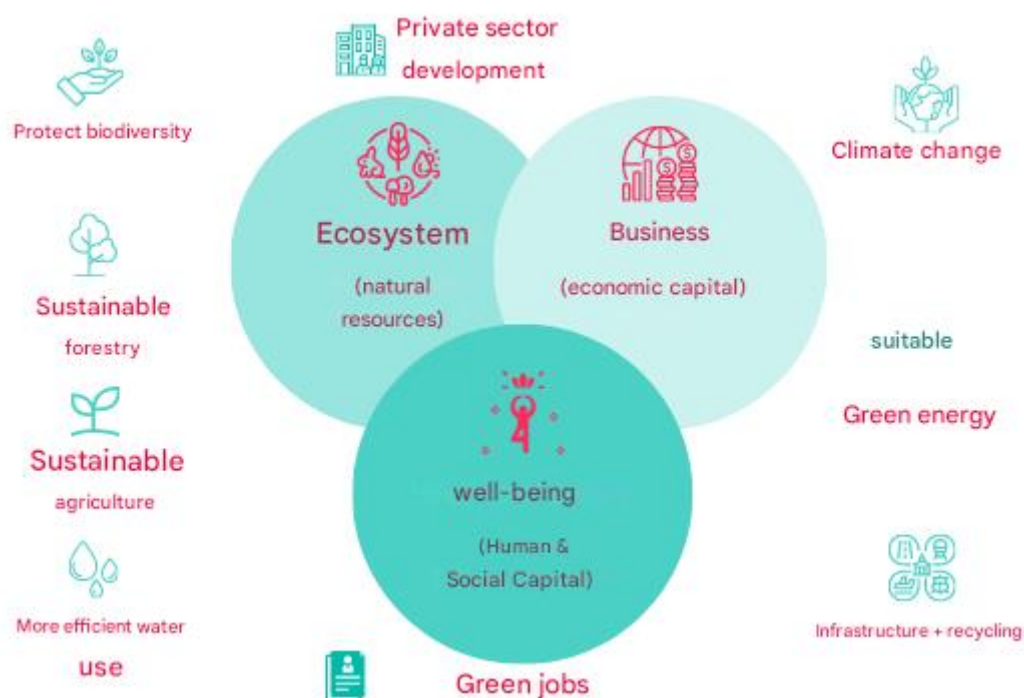
Sustainable mobility through renewable fuels and efficient transport

Circular economy through waste separation and recycling, which should be taken into account in the production process.

Sustainable water management through efficient water systems and environmentally friendly water quality.

Green technologies are becoming increasingly important, especially in the digital network world. Not only the latest devices such as laptops or smartphones, but also the data stored online consume a large amount of energy. Green electricity providers.

Figure 1. Fields of Ecosystem, Business and Well-being



Below I will list some of the main topics:

1. Basic principles and approaches of green economy;

Basic concepts and principles of green economy;

The link between sustainable development and green economy;

Economic and environmental efficiency of green economy.

2. Sustainable energy and green technologies

Development of green energy sources: solar, wind, bioenergy and other renewable sources;

Increasing energy efficiency: introduction of green technologies and infrastructure;

Electric transport and its role in a green economy.

3. Green finance and green bonds

Green investments and their economic efficiency;

Green bonds and their contribution to sustainable development;

The importance and development trends of green finance systems.

4. Agroecology and green agriculture

Sustainable agricultural practices and their contribution to the green economy;

Organic agriculture and its environmental impact;

Economic, environmental and social benefits of agroecology.

5. Green cities and urbanization

Green infrastructure and sustainable urban development;

Ecological design and green building materials;

Integration of long-term urbanization and the green economy.

6. Environmental protection and resource management

Strategies for conservation and sustainable management of natural resources;

Water resources management and the green economy;

Climate change and ecological recovery: adaptation to the green economy.

7. Digital technologies and innovation in the green economy

Development of the green economy using digital technologies;

Artificial intelligence, data analytics and "green" innovations;

IoT (Internet of Things) and smart cities: impact on the green economy.

8. Global climate change and the role of the green economy

The role of the green economy in combating climate change;

Reducing the carbon footprint and green technologies;

Developing and implementing climate policy through the green economy.

9. Green economy and social justice

Social aspects of the green economy: equality, justice and sustainable development;

Ecological justice: the development of the green economy in low-income areas;

Green jobs and their social impact.

10. State policy and legislation in the green economy

State policies and strategies aimed at the green economy;

State regulation and support in the green economy;

Green tax policy and environmental analysis.

11. Green economy and corporate social responsibility (CSR) in enterprises

The role of enterprises in the green economy and the requirements for them;

The role of corporate social responsibility in the green economy;

"Green" corporate practices and how they bring economic and environmental benefits.

12. Industry 4.0 and the green economy

The impact of Industry 4.0 technologies on the green economy;

Green industry and modernization of the environmental aspects of industry;

Green production using IoT, robotics and artificial intelligence.

13. International cooperation in the development of the green economy

A global approach to the green economy and the role of international organizations;

International agreements and their impact on the green economy;

UN Sustainable Development Goals and the green economy.

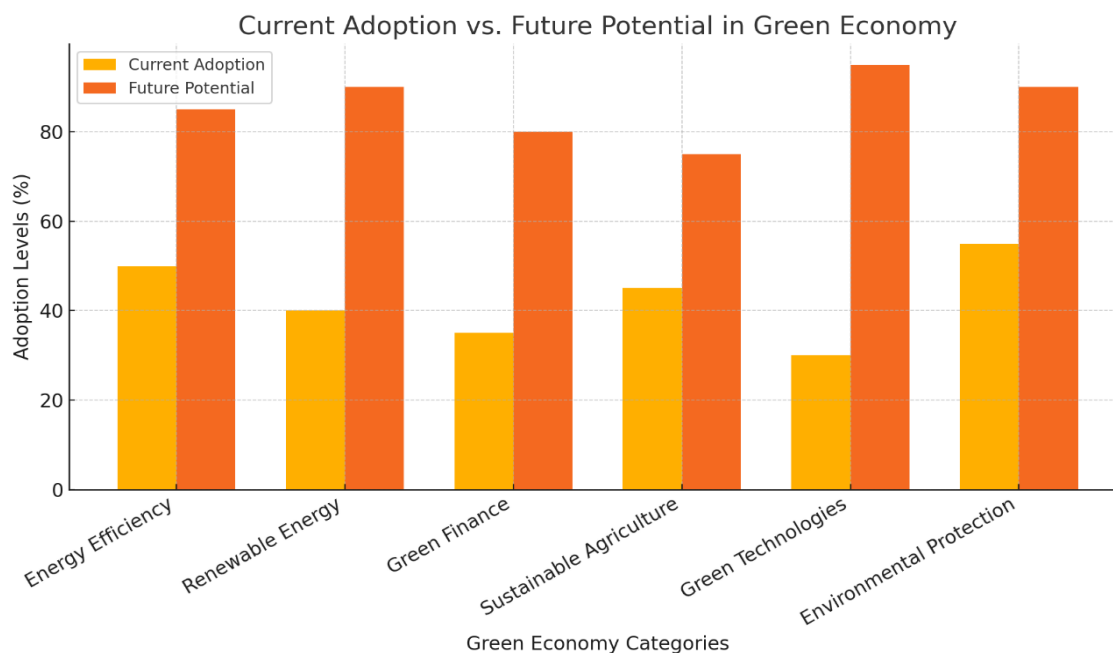
Results and Discussion

The analysis of the green economy principles reveals a multifaceted approach that incorporates environmental, economic, and social dimensions. The study identifies several key areas, including energy efficiency, renewable energy, green finance, sustainable agriculture, green technologies, and environmental protection. The results indicate that while significant progress has been made, substantial opportunities for improvement remain.

Current adoption levels in various green economy categories show moderate implementation rates. For instance, energy efficiency and environmental protection exhibit relatively higher adoption rates at 50% and 55%, respectively. In contrast, renewable energy adoption remains at 40%, green finance at 35%, and green technologies at 30%. The future potential for these categories is promising, with projections showing adoption levels reaching 85-95% with appropriate policy interventions and technological advancements.

Energy efficiency improvements have been driven by advancements in building designs, production processes, and transportation systems. However, gaps in the widespread adoption of renewable energy sources, such as solar, wind, and bioenergy, highlight the need for increased investment and infrastructure development. Green finance tools, such as green bonds and ecological investments, have shown potential but require further regulatory support and financial incentives to scale effectively.

Figure 2. Current Adopton and Future Potential in Green Economy.



Source: Developed by Author

Despite the progress, several knowledge gaps persist. The integration of green technologies within traditional industries remains limited due to a lack of theoretical frameworks and empirical data supporting their economic feasibility. Additionally, the role of digital technologies and artificial intelligence in enhancing green economy practices is underexplored. There is a need for deeper research on the socio-economic impacts of green transitions, particularly in low-income and marginalized communities.

Theoretically, this study reinforces the importance of sustainable development models that balance economic growth with ecological preservation. The concept of a circular economy, emphasizing waste reduction and resource efficiency, provides a robust framework for future research. Practically, policymakers must implement targeted strategies to encourage green investments, support renewable energy projects, and promote sustainable agricultural practices. For instance, incentives for businesses adopting green technologies and stricter regulations on emissions can drive significant progress.

Conclusion

The analysis of green economy principles highlights key findings, including moderate adoption rates in energy efficiency (50%), renewable energy (40%), and green finance (35%), while environmental protection shows a relatively higher implementation level (55%). These results underscore the significant potential for growth in green technologies and sustainable agricultural practices, with future adoption projections reaching up to 90% with adequate policy support and investment. The study emphasizes the need for integrating green finance tools, enhancing renewable energy infrastructure, and promoting circular economy practices to achieve sustainable economic growth. The implications of these findings suggest that policymakers, industry leaders, and researchers must collaborate to bridge existing knowledge gaps and develop innovative strategies for green transitions. Further research should focus on empirical studies assessing the socio-economic impacts of green economy policies, the role of digital innovations in sustainability, and international cooperation in combating climate change. Addressing these areas will be critical in realizing a balanced, resilient, and ecologically sustainable economic system that ensures both social equity and environmental preservation.

REFERENCES

- S. A. Adekunle, C. O. Aigbavboa, O. Ejohwomu, E. A. Adekunle, and W. D. Thwala, "Digital transformation in the construction industry: A bibliometric review," *Journal of Engineering, Design and Technology*, vol. 22, no. 1, pp. 130-158, 2024.
- D. S. Budiarto and N. Nordin, "Technology transformation, innovation, and digital economy

- development in developing countries: A systematic literature review," *Journal of Telecommunications and the Digital Economy*, vol. 12, no. 1, pp. 148-171, 2024.
- T. N. Hasanboy o'g'li and U. D. Toxtasinovna, "The role of digital technologies in the economy," *International Journal of Advance Scientific Research*, vol. 4, no. 3, pp. 232-238, 2024.
- X. M. Maxmudovna, "Adapting accounting to digital innovation: Analyzing challenges and strategies in Uzbekistan," *International Journal of Education, Social Science & Humanities*, vol. 12, no. 3, pp. 45-53, 2024.
- S. Akhunova, "Sustainable economic expansion: Unlocking Uzbekistan's green economy potential and navigating influencing factors," *Web of Humanities: Journal of Social Science and Humanitarian Research*, vol. 2, no. 4, pp. 17-24, 2024.
- M. Hafeez, I. Yasin, D. Zawawi, S. Odilova, and H. A. Bataineh, "Unleashing the power of green innovations: The role of organizational ambidexterity and green culture in achieving corporate sustainability," *European Journal of Innovation Management*, 2024.
- T. A. Ibragimovna, "Facilitating Uzbekistan's transition to a green economy through innovations in agriculture based on artificial intelligence," *Science and Innovation*, vol. 3, Special Issue 24, pp. 284-288, 2024.
- U. Ismailova, "Sustainable economic growth under climate change: Challenges and solutions," *Models and Methods in Modern Science*, vol. 3, no. 5, pp. 212-218, 2024.
- G. A. Ogunmola, P. Tiwari, and V. Kumar, "Unlocking the potential of digital currencies in international trade: Opportunities, challenges, and implications," in *Digital Currencies in The New Global World Order*, 2024, pp. 265-285.
- G. A. Ogunmola and U. Das, "Analyzing consumer perceptions and adoption intentions of central bank digital currency: A case of the digital rupee," *Digital Policy, Regulation and Governance*, vol. 26, no. 4, pp. 450-471, 2024.
- I. Haq, J. Pardaev, P. Allayarov, and S. Munir, "The impact of financial innovation and infrastructure on inbound tourism in Central Asia," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 10, no. 1, p. 100175, 2024.
- Z. Wang, S. Lin, Y. Chen, O. Lyulyov, and T. Pimonenko, "Digitalization effect on business performance: Role of business model innovation," *Sustainability*, vol. 15, no. 11, p. 9020, 2023.
- R. L. Turabaevich, "The role of information technology in improving the competitiveness of industrial enterprises of the Republic of Uzbekistan," *International Journal of Education, Social Science & Humanities*, vol. 12, no. 4, pp. 1058-1064, 2024.
- G. A. Crisan, A. Cristescu, and M. E. Popescu, "Shaping the digital labor market in the European Union," *Theoretical and Applied Economics*, vol. 31, no. 1 (638), pp. 201-210, 2024.

- K. Khurana and Z. Ataniyazova, "Exploring the vital role of human resource management in the progress of Uzbekistan's tourism sector," *Cogent Arts & Humanities*, vol. 11, no. 1, p. 2311002, 2024.
- S.M.Yusupov Abrasive Yeilish Sharoitida Ishlovchi Stamp Plastinalarining Mustaqamligini Diffuziya Borlash Usuli Bilan Oshirish *Miasto Przyszłości* 50, 119-124
- Y.S.Ma'rufovich, AQ Qurbonali o'g'li Kompyuterning raqamli boshqaruv mashinalari va ularni dasturlash - *Informatika va ma'lumotlar fanlari xalqaro jurnali ...*, 2024 y.
- Y.S.Ma'rufovich, AQ Qurbonali o'g'li Mexatronika va robototexnika tizimlarining sinergiyasini o'rganish *American Journal of Technology Advancement* 1(1), 36-38
- Akbarov, Q. Q. O. G. L. (2021). Titan qotishmalari materiallariga ishlov berish usullarini tadqiq qilishni dolzarbligi. *Science and Education*, 2(6), 252-257.
- oglu Akbarov, Q. Q. Titan qotishmalari materiallariga ishlov berish usullarini tadqiq qilishni dolzarbligi.
- Shoxrux G'ayratjon o'g, R., Qurbonali o'g'li, A. Q., & Dilshodjon o'g'li, T. I. (2022). Reconstruction of Machined Surfaces by Contact Welding and Milling of Worn Parts. *Eurasian Scientific Herald*, 9, 8-14.
- Qurbonali O'G'li, A. Q., & Dilshodjon O'G'li, T. I. (2022). Reconstruction of Machined Surfaces by Contact Welding and Milling of Worn Parts.
- Akbarov, Q. Q. O. G. L. (2021). Titan qotishmalari materiallariga ishlov berish usullarini tadqiq qilishni dolzarbligi. *Science and Education*, 2(6), 252-257.
- Ma'rufovich, Y. S., & Qurbonali o'g'li, A. Q. (2024). Exploring The Synergy Of Mechatronics And Robotics Systems. *American Journal of Technology Advancement*, 1(1), 36-38.
- Ma'rufovich, Y. S., & Qurbonali o'g'li, A. Q. (2024). Computer Numerical Control Machines and Their Programming. *International Journal of Informatics and Data Science Research*, 1(1), 13-18.
- SH. Fayzimatov, S. Yusupov. Analytical and model optimization of kinematic schemes of uniform-density pressing of powder materials. // "International Journal of Advanced Research in Science, Engineering and Technology" Vol. 6, Issue 6, June 2019.
- Akbarov, Q. (2023, October). TITAN VA PO'LAT QOTISHMALARI YUZALARINI, KIMYOVIY-TERMIK ISHLOV BERISH AZOTLASH USULIDA QATTIQLIGINI VA MUSTAHKAMLIGINI OSHIRISH. In Conference on Digital Innovation:" Modern Problems and Solutions".
- Qurbonali o'g'li, A. Q. (2024). Development of Emotional Intelligence in Preschool Children. *Journal of Preschool Education and Psychology Research*, 1(1), 26-29