

## Comparative Models of Green Economy Transition and their Legal Implementation under Private International Law

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### Abstract

This article discusses the emergence and stages of development of the green economy, the analysis of the first scientific studies on the green economy, the opinions expressed by scientists, and the models of transition to a green economy in different countries. The similarities and differences between the policies of transition to a green economy in such countries as America, Germany, Korea, China, the European Union, and the CIS countries, such as Russia, Kazakhstan, and Uzbekistan, are analyzed. In addition, the article analyzes the definitions of "green" financing given by private sector entities, the procedures for implementing this system, and the benefits provided to private sector entities for "green" projects. According to the article's results, the problems that arise in developing green economy strategies and ensuring sustainable development in developing countries are identified, and several proposals are put forward to overcome them.

**Keywords:** Green Economy Model, Green Services, Sustainable Development, Green Growth, Green Financing

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## I. Introduction

The concept of the "green economy" as an economic science began to form at the end of the 20th century. The notion of the green economy encompasses various scientific ideas in economic studies, including resource-saving economics, ecological economics, environmental protection economics, green policy, the theory of international economic relations, economic modernization, and innovation economy. As a scientific discipline, the green economy has its history of development and evolution (Osanova et al., 2022).

Issues related to the limitation and non-renewability of natural resources have significantly impacted all spheres of human activity, including economic operations. Scientific exploration of these issues gained popularity during the 1960s and 1970s. During this period, a new branch in economic literature known as "natural resource economics" emerged, which, based on the principles of traditional economics, considered the socio-economic consequences arising from economic activities impacting the environment as externalities, that is, external problems requiring ecological solutions within the framework of modern economic relations. An example of such an international-level application is the establishment of greenhouse gas emission trading systems (He et al., 2022).

The science of the green economy theoretically focuses on developing a general strategy for "greening" economic management systems and setting priorities. After transitioning toward a green economy, there has been theoretical and ideological justification for forming its legal framework and related sectors. In the 1980s and 1990s, the field of environmental economics rapidly evolved as an alternative approach to solving environmental problems through economic methods (Ruddin & Subhan Zein SGN, 2024). Unlike natural resource economics, this branch is not treated merely as a subfield of economics but as an independent area of scientific inquiry. The main objects of study within green economy science can be classified as follows:

- The interrelationship between the economy and the environment;
- Methods of managing economic systems that incorporate ecological and social factors to minimize environmental damage in the long term;
- Principles for developing new technologies in economic and production sectors aimed at minimizing environmental harm.

Based on these generalized objects, it can be concluded that the science of the green economy adopts an interdisciplinary methodology where economics intersects with other sciences. The goal of the green economy science is to justify the concept of the green economy among students, to highlight the necessity of transitioning toward it, to analyze key evaluation indicators and metrics of the green economy, to compare various global models for transitioning toward the green economy, and to develop the

knowledge and skills necessary for fostering green economic development, particularly within Uzbekistan.

The main goals of green economy science are to explain the meaning of key terms and ideas related to the green economy, understand its goals, principles, and how it works, and compare different ways to measure green growth. It also looks at how green projects are funded, the progress being made, and future plans for moving to a green economy. It studies the role of clean energy in supporting long-term development, the difficulties in growing organic farming, and the overall environmental situation around the world. Finally, it explores how economic tools can help protect the environment and looks at successful green economy practices from different countries.

## II. Methodology

The creation of a unified methodological base for the study of economic, social, and environmental phenomena, as well as the interdisciplinary approach to these issues, has generated a series of challenges and contradictions. Despite these difficulties, there remains an urgent need to develop corresponding legislation that incorporates the principles of sustainable development and ecological economics. Legislation aimed at promoting the development of the green economy should serve the interests of all economic entities by encouraging the "greening" of economic activities. At the economic level, it is essential to assess the outcomes of green economy management processes.

When choosing research methods and strategies for studying the green economy, it is important to focus on a few key ideas. First, outside environmental factors should be a top priority, especially when natural resources are limited. Second, it helps to break down the process of putting the green economy into action into clear stages, such as theory, ideas, politics, and economics. Finally, research should bring together knowledge from different fields, since the green economy connects many areas like the environment, society, and the economy.

## III. Results

### A. The Concept of the Green Economy

The concept of sustainable development is becoming the main goal of countries around the world. The culmination of this issue was the adoption by 195 countries of the policy to limit global warming to +2°C at the 15th United Nations Climate Change Conference, held in Paris, France, in 2015. At the conference, 147 countries presented green economy plans, 147 countries presented programs for the use of renewable energy sources, and 167 countries presented recommendations for improving energy efficiency in response to climate change (Cheba et al., 2022). The concept of the transition to a "green" economy has its own history of development and is divided into the following stages:

The first stage 1950–1960s. The period of awareness of the negative impact of

the economy on the environment and humans. During this period, the relationship between economic development and environmental degradation was fully realized, but environmental problems were reduced to the need to take into account the necessity of protecting nature in the course of economic development.

The second stage covering the 1960s–1970s. Due to stable economic development, intensive use of natural resources, and environmental pollution, the material and raw resource base of the economy was degraded, leading to a decline in well-being.

The third stage 1980–1990s. This period saw the rapid development of "green technologies" and ecological modernization theories.

The fourth stage 2000–2010s. The concept of sustainable development became embedded in legislation, business, and the media. Critiques of the "free market" system's limitations in addressing environmental and social issues gained strength.

### **B. The First Scientific Research on the Development of the Green Economy**

The first scientific research on the development of the green economy began in the 1970s. For example, in 1972, at the United Nations Conference on the Human Environment held in Stockholm, 26 principles aimed at the preservation and development of the environment were developed. Although the term "green economy" was first introduced in the economic literature, its essence is still interpreted in different ways. In some sources, the green economy is studied as a new sector of the economy that help improve the natural environment of a country (Fan & Wang, 2024). In other research, the green economy is studied as the implementation of new technologies and ecosystems that assist and benefit nature. In a third group of studies, the green economy is considered a transition to a new stage of development aimed at producing environmentally friendly products, based on clean or "green" technologies.

A widely recognized and relatively comprehensive definition of the term "green economy" was developed by UNEP: "A green economy is an economy that leads to the improvement of human well-being and social equity while significantly reducing environmental risks and ecological scarcities". The absence of a universally accepted approach to clarifying the essence of this concept indicates that the notion of the green economy is still evolving. This concept can also be applied to economic sectors, theories of the green economy, principles, or green economy policies. The goal of the green economy concept is to ensure sustainable economic growth, enhance investment activity, improve the quality of environmental protection, and strengthen social integration. Achieving this goal requires a large-scale allocation of both public and private investments into the environmental and social sectors of sustainable development. Experts from UNEP divide the sectors of the green economy into two groups:

- Raw material production, agriculture, fisheries, forest, and water resource

management, i.e., sectors related to "natural capital";

- Energy, manufacturing industry, mechanical engineering, transport, and construction, i.e., sectors related to "increasing energy and resource efficiency".

Some experts emphasize the necessity of using the Clark-Fisher model to determine the directions of green economy development. This model was adapted by UN experts to emphasize the shift toward "green services" such as advanced scientific and technical production, tourism, urban management and waste recycling, education, scientific research, and financial services.

### **C. Goals, Strategic Tasks, and Principles of Transition**

Most countries set specific goals and objectives in their strategies for transitioning to a green economy. At this point, the question arises: What is the purpose of transitioning to a green economy? The social sphere often serves as a reference incentive in this regard. These investments help to more efficiently use natural capital and ecosystems, which are key economic resources, or to replace them with alternative solutions when they are under threat of depletion or degradation (Terzić, 2023). At the same time, such investments must create conditions for social justice and promote the creation of decent jobs. According to the International Labour Organization, green jobs contribute to preserving or restoring the environment while ensuring fair income, decent working conditions, and social protection. Among the core tasks of the green economy are:

- The strengthening of environmental protection,
- The improvement of resource use efficiency,
- The deepening of social integration, AND
- The enhancement of inclusive economic development.

### **D. The Concept of "Green Finance"**

On a global scale, the transition to a green economy necessitates long-term and substantial investments, primarily focusing on the efficient utilization of renewable energy sources and the development of energy-saving technologies. A critical aspect of this transition is the financing required to support these initiatives. Currently, there is no universally accepted definition of "green" or "environmental" finance within economic literature. Firstly, many publications on the green economy do not provide a clear definition of green finance. Secondly, the few existing definitions vary significantly in their content (Lazaro et al., 2023).

Generally, green finance refers to the total amount of investments and other financial support directed towards the implementation of environmentally clean, highly energy-efficient, and low-carbon projects. Terms such as "environmentally responsible investments" and "climate change investments" are often used synonymously with green finance. The term "green finance" was first introduced by American economist Richard L. Sandor in 1992 during his tenure at Columbia

University, where he developed a course focused on financing resource conservation.

### **E. Definitions of Green Finance by Private Sector Entities**

Private companies engaged in various research areas within the green economy have attempted to elucidate the concept of "green finance." For instance, experts at Bloomberg New Energy Finance (BNEF) utilize the term "green finance" alongside "green investments," suggesting that in practice, "green finance" serves as a broader term encompassing various investment activities aimed at environmental sustainability. PricewaterhouseCoopers (PwC) consultants define green finance from a banking sector perspective as financial products and services that consider environmental factors throughout the lending decision-making process, including ex-post monitoring and risk management. This approach promotes environmentally responsible investments and stimulates low-carbon technologies, projects, industries, and businesses. The International Finance Corporation (IFC) describes green finance as a broad concept encompassing financial investments, projects, and initiatives aimed at ensuring sustainable economic growth.

### **F. Structure and Implementation of the Green Finance System**

Global experience demonstrates that there are viable avenues to meet the financing needs of a green economy. All green projects necessitate substantial investment. Due to the elevated risk levels associated with financing green projects through traditional methods, they are often deemed less attractive from an investment standpoint. Financial, banking, and insurance investments have emerged as pivotal channels for private sector involvement in the green economy (Fichtner et al., 2025). Microfinance also plays a significant role at the agricultural level, enabling low-income individuals to invest in resource and energy efficiency, thereby mitigating associated risks. Green finance serves as the cornerstone of the green economy concept, acting as a nexus between economic growth, environmental protection, and financial institutions. Sources of green finance can be categorized into the following groups:

- Public budget allocations;
- Funds from international financial organizations;
- Private sector funds (both domestic and foreign).

The transition to a green economy necessitates the mobilization of additional investments throughout the entire lifecycle of green projects. Presently, countries worldwide are striving to shift from predominantly public financing of green projects to actively attracting private investors. Experts suggest that the ratio of public to private investments in green projects should be approximately 1:5. In China, for instance, 10–15% of green project financing is sourced from the public budget, while 85–90% comes from private funds. Therefore, it is advisable to reduce the risks associated with private investments in green projects to a level comparable to the risks

typical for traditional project financing.

### **G. Tax Incentives for Investing in Green Projects**

Due to its economic efficiency, introducing tax credits for investments in green projects is appealing to both issuers and investors. In practice, the following types of tax incentives are utilized:

#### **1. Tax credit bonds**

Investors receive a tax credit instead of interest payments, reducing the issuer's debt service obligations. This model has been implemented in the U.S. through instruments like Clean Renewable Energy Bonds (CREBs) and Qualified Energy Conservation Bonds (QECBs).

#### **2. Direct subsidy bonds**

Issuers receive cash rebates from the government to subsidize their net interest payments. This structure has been used under U.S. federal programs to support renewable energy projects.

#### **3. Tax-exempt bonds**

Investors are exempt from paying income tax on the interest earned from green bonds, allowing issuers to offer lower interest rates. This incentive is commonly applied to municipal bonds in the U.S. and has been utilized in Brazil for financing wind energy projects.

#### **4. Stimulating demand through government initiatives**

Governments can bolster the green bond market by creating favorable policies and frameworks that encourage investment in green projects.

#### **5. Allocating quotas in public social funds**

Governments may permit a portion of pension and social fund assets to be invested in fixed-income green bonds, thereby channeling institutional capital into sustainable projects.

#### **6. Mandating bank investment quotas**

Regulatory authorities can require banks to allocate a specific percentage of their lending portfolios to green projects, ensuring consistent funding for sustainable initiatives.

## **IV. Discussion**

The "green economy" model in Germany, Norway, Denmark, and the Republic of Korea holds leading positions in economic development. However, in most countries, governments are forced to use limited levers of the green economy model under the pressure of "big business." The slowdown of the transition to the green economy model in these countries is explained by the decrease in economic growth

rates. Countries such as Greece, Ireland, and Spain, which suffered significant damage from the global financial crisis, are trying to ensure economic growth and "green employment" based on the green economy. Rational use of natural resources is emphasized in countries more dependent on the raw materials sector (such as France, Norway, Finland). In countries lacking fuel resources (Austria), serious attention is given to energy and energy-saving issues.

### **A. Situation in the United States**

The United States does not have a special program for transitioning to a green economy. The first problem encountered when studying the development of the green economy sector in the country is the difficulty in obtaining information about this sector. This is due to the abolition of funding for data collection programs on green goods and services by the U.S. Congress in 2013, as part of budget cuts. Since then, researchers have tried to "develop new methods for predicting industry development trends or assessing the effectiveness of the green industry based on old data" in the green economy. Another group of researchers studies the work conducted in the clean energy sector, based on information provided by the U.S. Department of Energy or individual states.

According to researchers from University College London (UCL), if the United States wants to increase its economic growth rates, it must double spending on environmental protection and combating climate change. Such expenditures will help create new jobs and increase income. Based on statistical indicators from hundreds of real business representatives, the authors estimated that 9.5 million people or 4.0% of the economically active population in the United States are employed in green sectors of the economy and have an annual income of \$1.3 trillion, representing 7.0% of the country's gross domestic product (GDP).

### **B. Priority Directions of the Green Growth Strategy in the European Union**

The transition to a green economy is reflected in many strategic documents of the European Union. According to the analysis, the green economy is not used as the main concept or priority in ensuring sustainable development in the European Union. However, the green economy is considered one of the ways to integrate priorities in ensuring sustainable development (Houssam et al., 2023). Employment and development, climate measures to combat climate change, and the idea that "smart energy use is a factor that simultaneously stimulates development, the creation of new jobs, and investment in Europe's future" are emphasized. Within the framework of priority directions, the circular economy is interpreted as "helping European businesses and consumers transition to an economy that uses resources more rationally".

The circular economy is an economy that envisages reducing the life cycle of products by expanding recycling and reuse to obtain maximum benefit from raw



materials, products, and waste. In the European Union, the process of transitioning to a green economy has a three-level management structure:

- Pan-European level;
- National level;
- Regional level.

At the Pan-European level, disagreements in green economy policy will be resolved, and the development and implementation of green technologies will be carried out. At the national level, priority is given to fundamental research and training of personnel. At the regional level, policies to popularize eco-innovation are implemented. The following programs are important for analyzing the transition to a green economy in the European Union:

- The Europe 2020 Strategy;
- The European Green Deal Program.

The Europe 2020 Strategy can be considered the first state program aimed at ensuring "green growth." The program defines the transition to economic development based on minimal resource use. The goal of this strategy is to create conditions for sustainable development and inclusive growth within the European Union. Inclusive growth means ensuring economic prosperity for every member and citizen of the European Union, "regardless of age, gender, physical condition, or religious beliefs," understood as the necessity of participation in sustainable development (AllahRakha, 2024).

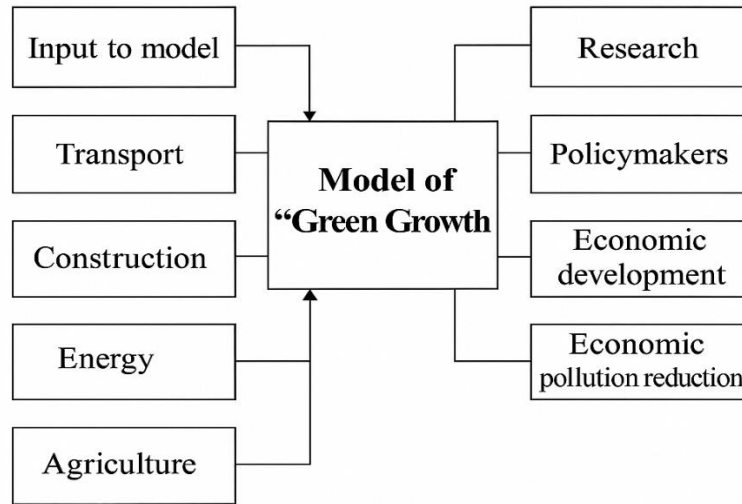
The European Green Deal program outlines the priorities of the European Union for restoring the economy after the crisis caused by the COVID-19 pandemic. The President of the European Commission, Ursula von der Leyen, while presenting the program, stated: "The European Green Deal is our new growth strategy. It enables us to simultaneously create jobs and reduce greenhouse gas emissions". The Vice-President of the European Commission, Frans Timmermans, explained: "We are proposing a green and inclusive transition that helps improve the well-being of the population and ensure a healthy planet for future generations".

### **C. Specifics of the Development of the "Green Economy" in Germany**

In Germany, as in other developed countries, the strategy for transitioning to a "green economy" is aimed at ensuring "green growth" by reducing greenhouse gas emissions while adapting to climate change (Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety). The German model of "green growth" is crucial for assessing the efficiency and cost of measures associated with environmental policy. The priorities incorporated into the "Green Growth" model are interrelated and enable a comprehensive evaluation of the macroeconomic situation (Tao et al., 2024). This model requires regular communication between stakeholders' researchers, policymakers, non-governmental organizations, and entrepreneurs, on the

one hand, and industry experts, representatives of new economic thinking, and consumers, on the other.

**German Model of Green Growth**



**Figure 1**

In Germany, various levers such as taxation, public procurement, technical regulation, intellectual property protection, and the implementation of targeted state programs are widely used to support the "green economy". Germany's innovation and technology policy in developing the green economy is mainly focused on education, transportation, environmental protection, and resource-saving green technologies. Germany supports the green economy by encouraging businesses to innovate through tax breaks and financial help (Muhammad & Hoffmann, 2024). It works to build strong partnerships between research centers and companies. The country is also improving its education system to help people learn about new technologies. Efforts are being made to create a good environment for the growth of advanced industries like biotechnology and nanotechnology. Additionally, Germany is working to grow the venture capital market to support new ideas and startups.

**D. Factors of Transition to the "Green Economy" and Prospects for Development**

The Republic of Korea is one of the first countries to adopt green growth as a national strategy. The country occupies a leading position in promoting the development of an environmentally sustainable economy. The goal of the Republic of Korea's green economy strategy is to efficiently use energy resources, reduce the environmental impact of all forms of energy and resource consumption, direct investments toward environmental protection activities, and expand the scale of economic production. The Green Growth Initiative of the Republic of Korea was promoted under President Lee Myung-bak between 2008 and 2013. In 2009, Korea adopted a plan to reduce greenhouse gas emissions by 30% by 2030 relative to

business-as-usual levels. Between 2009 and 2012, approximately 3% of the country's GDP was allocated to support green growth initiatives.

South Korea's green economy plan focuses on cutting greenhouse gas emissions, dealing with climate change, and building new industries using green technologies. It also aims to improve people's lives by encouraging eco-friendly habits and turning the country into a leader in green development. The main goals are to become energy independent, use energy more efficiently, increase the use of renewable energy, ensure long-term energy security, and boost the economy and create jobs through green technology. Since 2011, the Republic of Korea has introduced the Green Credit Card system to stimulate green consumption. The system encourages the consumption of environmentally friendly goods and services, the use of public transportation instead of private cars, and the purchase of energy-efficient products.

Residents accumulate points by purchasing green products, using public transportation, and minimizing cash transactions. Accumulated points can be redeemed for utility bill payments or donated for charitable purposes. Since the official announcement of the Green Growth strategy, green business has significantly expanded in the Republic of Korea. Nearly all major commercial companies have prioritized their green projects for investment. Between 2008 and 2010, the volume of capital investments by the 30 largest commercial groups increased by an average of 75% per year.

### **E. China's Experience in Transitioning to a Green Economy**

China embarked on the path of sustainable development at a time when its industrial output per capita was approximately one-third that of developed countries. In 2007, former Chinese Premier Wen Jiabao criticized China's economic model as "unstable, unbalanced, uncoordinated, and unsustainable". In response, the Chinese government amended its five-year development plans, aiming to shift the country's growth model from quantity-driven to quality-driven economic development (Brühl, 2025). China's approach to transitioning to a green economy differs significantly from that of Western countries. Rather than curtailing industrialization, China seeks to harmonize environmental protection with the continued growth of manufacturing sectors. Three key aspects of China's strategy can be identified:

First, combating industrialization is not part of China's concept of sustainable development. Instead, the continuation of industrialization is seen as a means to solve environmental problems. This includes expanding fixed-asset investments in fuel resource extraction and other heavy industries. The government encourages the upgrading and modernization of production, which, in turn, drives resource-saving initiatives and energy efficiency improvements.

Second, the Chinese government implements large-scale infrastructure projects, such as the South–North Water Transfer Project, and the expansion of transportation

networks to stimulate the development of the country's interior regions. The relocation of industries to new industrial zones is encouraged by increasing land prices in older urban areas and tightening environmental regulations.

Third, China's approach to sustainable development places a strong emphasis on the social dimension, such as poverty reduction and urbanization improvement. Reforms in this direction have included birth control policies, regulated rural-to-urban migration, the relocation of industries to rural areas, and large-scale ecological restoration programs, such as reforestation and public environmental works. Thus, China's green transition model is characterized by the integration of environmental goals with economic modernization and social development priorities.

### **OECD Countries' Strategies for Transition to Green Economy and Green Growth**

<b>Country</b>	<b>Strategies and Priorities</b>
<b>European Union</b>	'Europe 2020' Programme (2015), 'European Green Deal' (2019). Aims to ensure transition to a low-carbon economy, reduce resource consumption while increasing economic growth and competitiveness, combat climate change, and limit the environmental impact of resource use.
<b>United Kingdom</b>	Industrial Development (Industrial Strategy – 2017), Clean Growth Strategy (2017). Aims to reduce greenhouse gas emissions across all sectors and support low-carbon innovations.
<b>France</b>	Laws on 'Energy Transition for Green Growth' (2015) and 'Restoration of Biodiversity, Nature and Landscapes' (2016); National Strategies for 'Low-Carbon' and 'Ecological Transition for Sustainable Development 2015–2020'. Focused on energy supply issues, price fluctuations, resource depletion, and environmental protection.
<b>Japan</b>	'Energy Strategy'. Targets a 26% reduction in greenhouse gas emissions by 2030 and 80% by 2050, and aims to increase the share of renewable energy to 22–24%.

<b>Republic of Korea</b>	‘National Strategy for Green Growth and Five-Year Plan’ (2009–2013); ‘Roadmap for Hydrogen Economy Development in Korea until 2040’. Aims to support sustainable growth, foster a green environment, improve quality of life, and address climate change at the international level.
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## **F. Priority Areas of the Green Economy Development Strategy in CIS Countries**

The Commonwealth of Independent States (CIS), including Russia, is striving to address the transition to a green economy in line with global trends. These countries share both common and specific characteristics in their efforts to develop an economy based on green economy principles. As members of the global community, CIS countries are attempting to reduce their historically low energy efficiency levels and modernize their economies through the use of new technologies. Most CIS countries are among the top ten globally in terms of energy intensity of GDP and CO<sub>2</sub> emission intensity. All CIS countries have adopted national sustainable development programs and have ratified the Paris Agreement. Moreover, many CIS countries, including Kazakhstan, Belarus, Uzbekistan, Kyrgyzstan, and Ukraine, have developed targeted green economy development programs (AllahRakha, 2023).

## **G. The Republic of Kazakhstan**

Kazakhstan is one of the first Central Asian countries to adopt the concept of a green economy. Kazakhstan’s green economy concept aims to align environmental standards with internationally recognized frameworks, including standards promoted by Yale University’s Environmental Performance Index (EPI) (Daniya & Tang, 2024). Kazakhstan's model of inclusive green growth is based on the following components:

- Ensuring sustainable economic growth,
- Promoting efficient use of renewable resources, and
- Developing social and human capital.

Kazakhstan has launched important programs to support its shift to a green economy. The main goal is to become one of the world’s top 30 developed countries by 2050. To do this, Kazakhstan plans to move towards a low-carbon economy, which means using cleaner energy and protecting the environment. The country will focus on improving its institutions, building better infrastructure, and investing in the education and skills of its people to make this green transition successful.

## **H. Uzbekistan's Strategy for Transitioning to a Green Economy: Necessity, Goals, Principles, and Tasks**

The necessity of transitioning to a green economy in Uzbekistan is driven by several factors: the heavy reliance on non-renewable natural resources for energy production, the limited availability of such resources, environmental pollution associated with rapid industrial development, water scarcity, and the desiccation of the Aral Sea. The sustainable development of Uzbekistan's economy and the formulation of a long-term strategy for structural reforms require careful consideration of global environmental challenges and business trends. On April 19, 2017, Uzbekistan signed the Paris Agreement at the UN Headquarters in New York. Uzbekistan's active participation in the Paris Agreement provides several advantages, including:

Uzbekistan is working on several important goals to protect the environment and build a green economy. These include saving energy, using more renewable energy, managing land and water better, and reducing the impact of climate change. The country also wants to attract more foreign investment and support by working with others on new technology and innovation. It is taking steps to adapt to climate change and reduce risks, especially to help solve problems like the Aral Sea crisis. However, there are still challenges, such as low energy efficiency, poor use of natural resources, outdated technology, and not enough involvement from small businesses in using green and smart solutions.

The absence of a long-term strategy had previously hindered systemic measures to implement green technologies and transition toward a green economy. In response, a comprehensive system of long-term measures for the development of Uzbekistan's green economy was formulated with support from the United Nations, in alignment with the 2030 Sustainable Development Goals (SDGs). Since 2015, Uzbekistan has committed to supporting the 2030 Agenda for Sustainable Development, including all 17 goals and 169 targets.

On October 4, 2019, the President of Uzbekistan issued Presidential Decree No. PQ-4477 "On Approval of the Strategy for the Transition to the Green Economy for 2019–2030". This decree supports the consistent implementation of Uzbekistan's 2017–2021 Development Strategy and the country's commitments under the Paris Agreement. The primary goal of the strategy is to achieve social development by integrating green economy principles into ongoing structural reforms, reducing greenhouse gas emissions, and ensuring strong economic growth with climatic and environmental stability. Uzbekistan's green economy strategy has identified four priority areas for the period 2019–2030:

- Improving energy efficiency,
- Developing renewable energy sources,
- Adapting to the consequences of climate change,
- Ensuring the rational use of natural resources.

The economic mechanisms developed within this strategy focus on production transformation toward sustainable practices. The shift to a green economy in Uzbekistan has become a fundamental component of the nation's comprehensive

economic reform strategy. The implementation of the Green Economy Strategy 2019–2030 and the nation's adherence to the Paris Agreement demonstrate a clear acknowledgment of the interconnection between sustainable environmental stewardship and enduring economic competitiveness. Uzbekistan's green policy emphasizes enhancing energy efficiency, advancing renewable energy sources, adjusting to climate change effects, and ensuring the judicious utilization of natural resources.

### Conclusion

The transition to a green economy would enhance economic efficiency, increase national wealth, expand the use of renewable resources, and reduce environmental risks. However, such a transition can pose serious challenges for developing countries. Developing countries typically rely heavily on natural resource exploitation and must focus their attention on addressing hunger and poverty, building essential infrastructure, investing in education and healthcare, and balancing employment supply and demand. Therefore, economic development strategies and green growth initiatives in these countries must be directly linked to poverty reduction.

Developing countries face many challenges when trying to create green economy plans and achieve sustainable development. Each country needs to shape the idea of a green economy to fit its own social and economic situation. Many of these countries rely heavily on using natural resources, which causes harm to the environment. Old and outdated technology makes it hard to modernize industries. There is also not enough money for green projects, as most public funds are used to fight hunger, reduce poverty, and improve healthcare and education. To move towards a green economy, countries must work hard to overcome these problems.

The transition to a green economy has emerged as a critical necessity at the global level, as countries seek to balance economic growth, social inclusion, and environmental sustainability. The cases of Germany, the Republic of Korea, China, the CIS countries, Kazakhstan, and Uzbekistan offer important insights into the diverse pathways toward green economic transformation, each shaped by specific national contexts, priorities, and developmental stages.

In Uzbekistan, the transition to a green economy has become an integral part of the country's broader economic reform agenda. The adoption of the Green Economy Strategy 2019–2030 and the country's commitment to the Paris Agreement signify a clear recognition of the interdependence between sustainable environmental management and long-term economic competitiveness. Uzbekistan's green strategy focuses on improving energy efficiency, developing renewable energy sources, adapting to climate change impacts, and ensuring the rational use of natural resources.

However, the situation in developing countries more broadly underscores significant structural and institutional challenges. Limited financial resources, reliance on outdated technologies, environmental degradation, and pressing social needs such

as poverty eradication and access to healthcare continue to constrain the pace of green transition. Therefore, green economy strategies in developing countries must be context-sensitive, aligned with national development goals, and directly linked to poverty reduction and social inclusion.

To successfully shift to a green economy, strong government support and careful planning are very important. Investing in education, new ideas, and research helps the green economy grow faster. Working together with other countries, especially by sharing money and technology, is key to helping developing nations. A green economy should not only focus on the environment, but also include social and economic progress to create a better future for all. The transition to a green economy represents not only an environmental imperative but also an opportunity for structural modernization, resilience building, and sustainable prosperity. Ensuring an inclusive and just green transition remains a key challenge and opportunity for all nations striving for a sustainable future.





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