

Green economy development in the Republic of Uzbekistan

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Abstract. The “green economy” is a new concept that has emerged in the last two decades, it is associated with sustainable development, calling for the simultaneous achievement of social, economic, and environmental goals. In the Republic of Uzbekistan, a “green” economy can be understood as an economy that leads to increased well-being of people and strengthening social justice while reducing environmental risks, efficiently using resources, and stimulating the conservation of the country’s natural ecosystems. The aim of the study is to compare the economies of Uzbekistan and China, and to extract positive aspects and apply them to the economy of the Republic of Uzbekistan. The main research methods were the generalization and systematization of scientific and statistical data, their comparative analysis, synthesis, application of a systematic approach, data processing using methods of economic analysis, and the general theory of statistics. The object of the study is the Republic of Uzbekistan. For a long time, the development of the Republic of Uzbekistan, and most countries of the world, was focused on achieving economic growth through the irrational use of natural resources. Later it became clear that the path of economic growth must take into account environmental and social factors. The green economy is ensured by growth in income and employment, and public and private investments, which are aimed at reducing pollution emissions, creating jobs, and a favorable environment for the life and health of the population, increasing the efficiency of the use of energy, resources, etc. Currently, issues of the “green” economy are considered by various bodies and committees within international systems, government bodies of various countries, private organizations, and others.

1 Introduction

A “green” economy is an innovative type of economy that improves the state of the environment and preserves natural resources. The UN has defined a “green” economy as one that contributes to the growth of the population’s well-being and reduces risks to the

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environment. The main properties of the “green” economy are efficient and rational use of natural resources, reduction of greenhouse gas emissions, as well as the introduction of innovative technologies. Goals for transition to a green economy vary across countries and depend on national contexts. For example, in Denmark, the transition may be associated with the export of green technologies, international image, etc. In China, the transition is linked to environmental improvements and international cooperation.

Based on this, we can say that different countries use their government instruments, mechanisms, and methods of transition to a “green” economy. There is a difference between environmental regulation and the transition to a “green” economy; the transition involves not only restrictions but also opportunities. Environmental regulation is a component of the transition to a “green” economy and brings it to a new stage of development.

All over the world today, environmental problems are intensifying, which leads to a deterioration in people's livelihoods. Such problems include climate change, a decrease in the potential of water resources and their quality, a decrease in the area of green spaces, pollution of the air, the surface of the earth, rivers, and lakes, deterioration in the quality of consumer products, a decrease in the amount of usable land, and a worsening epidemiological situation.

One of the methods for the transition to sustainable economic growth is the formation of a “green economy”. The possibility of transitioning to a green economy was first mentioned at the Los Cabos (Mexico) summit in 2012. On December 2, 2022, the resolution of the President of the Republic of Uzbekistan approved the Program for the country's transition to a “green” economy and ensuring economic growth until 2030. The main objectives of the Green Economy Program are increasing labor productivity and optimal distribution of natural resources.

The development of a “green” economy has become relevant over the last decade; the concept itself began to take shape long before that. The green economy model was first put forward in 2012 in Rio de Janeiro at the UN conference, where states agreed to build a green economy to achieve sustainable economic development. This requires investment. UNEP research has found that investing in the green economy will provide 2% of GDP in 2011-2050. current future growth rates will avoid significant risks associated with climate change, increasing water scarcity, and loss of ecosystem services

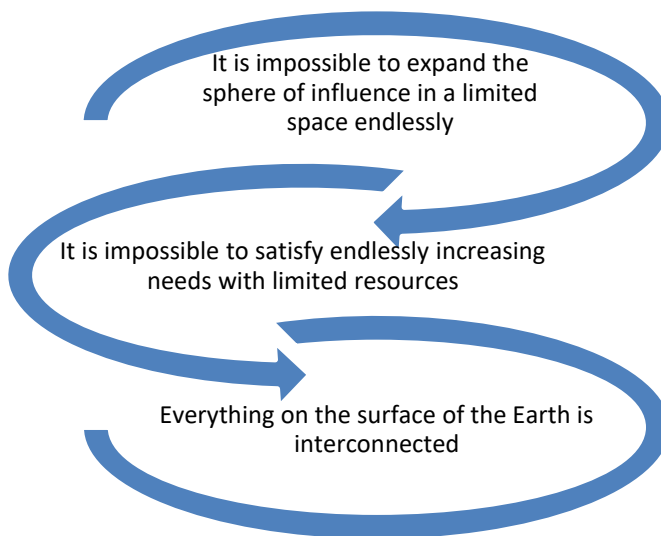


Fig. 1. Axioms of the «green» economy

The main objectives of green policy are:

- Governance and management of environmental management at the national level;
- Strategic environmental assessment and environmental assessment;
- Equalizing competitive conditions for environmental products through the phased abolition of outdated subsidies;
- Reforming policies and providing new development incentives;
- Reforming market infrastructure and market mechanisms;
- Reorientation of public investments;
- Introduction of environmental models into public procurement and lifestyle of the population.

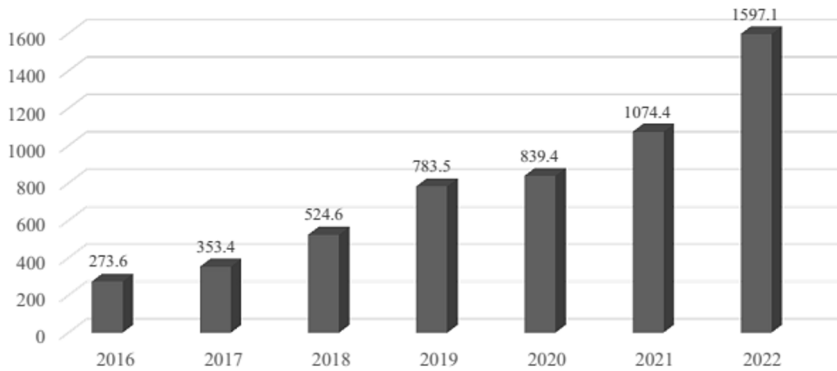


Fig. 2. The total volume of green financing all over the world is billion dollars.[1]

Green finance is actively developing. In 2022, its global volume exceeded 1 trillion dollars (Fig. 2). This reflects global environmental awareness and allows financial flows to redirect towards ensuring the country's well-being. Green finance has an essential place in the economy, allowing investment in projects and initiatives that preserve nature, reduce greenhouse gas emissions, and contribute to sustainable development at the global level. Researchers have developed the Global Green Economy Index(Global Green Economy Index, GGEI), which allows you to compare countries and takes into account such indicators as:

- 1) leadership and climate change - climate change policy, control of greenhouse gas emissions, use of renewable energy sources and others;
- 2) efficiency sectors - energy saving, resource efficiency, pollution reduction, and others;
- 3) markets and investments - the volume of investments in projects, financing for enterprises, the degree of development of green markets, and so on;
- 4) environment - the country's results and achievements concerning air and water quality, environmental protection, biodiversity and others.

2 Literature review

Researcher D. Meadows [2] warned humanity against excessive consumption and waste of limited natural resources, as this would lead to environmental disaster and limit the possibilities of long-term economic growth. D. Meadows called for a transition to a model that would consider limited resources and the need to preserve them for future generations. The term “green economy” was officially introduced in 1989 in the report by D. Pearce, “Green Economy Plan” (Green Economy Report) [3]; this scientific category was first defined as economics, seeking to ensure the sustainability and well-being of humanity, as

well as the preservation of the natural environment and resources for future generations. In this regard, a new approach to assessing economic activity has been proposed, considering not only traditional indicators of economic growth but also the impact on the environment and the cost of losses of natural resources and environmental services. Since then, the idea of a green economy has been developed and disseminated in the World Reports of 1991 and 1994, prepared by the United Nations Commission on Environment and Development, which emphasized the importance of the relationship between the economy and the environment, as well as the need to introduce new approaches to production and consumption that take into account conservation of nature and resources. In the book "Natural Luck," authors Mark Tersek and Jonathan Adams [4] say that nature is a promising area for business, along with new technologies or innovations. The author Bobyleva [5] suggested that the first step in the transition to sustainable development, to a "green" economy, should be a change in the measurement system. Natural resources are natural capital; when humanity understands this, the environment will fall into place.

3 Methodology

The main research methods were the generalization and systematization of scientific and statistical data, their comparative analysis, synthesis, application of a systematic approach, data processing using methods of economic analysis, and the general theory of statistics. During the study, they used general scientific analysis and comparison methods, tabular and graphical methods of visualization of calculations, and methods of induction and deduction to form conclusions.

4 Result and Discussion

In many industrial zones, there is no strict control over the state of the environment and the level of harmful emissions, which leads to pollution and deterioration of the environmental situation around industrial zones. The bulk of such industrial zones are located in South Asia. Enterprises discharge chemicals into the environment without neutralization, which is typical for India and Pakistan. According to the Global Green Finance Development Index 2022[6], Sweden ranks first, making efforts to develop a green economy and a climate-resilient approach. Let's consider China's green economy policy.

CHINA. One of the exciting models for transitioning to a "green economy" is China. China is a world leader in producing many chemicals, such as synthetic ammonia, chemical fertilizers, sulfuric acid, etc. According to international organizations, this country was experiencing an environmental disaster. The air was polluted, forest areas were reduced, drinking water supplies were reduced, and food supplies were under threat. The state has actively begun to fight to solve environmental problems in recent decades. The beginning was the adoption of the "Environmental Protection Law," which emphasizes that China defines ecological protection as one of the fundamental government policies. After this, China began to develop regulations for preventing and eliminating environmental noise pollution, controlling harmful chemicals, and so on. The main regulatory act in China is the Strategy for Ensuring the Environmental Safety of the PRC until 2025. China was the first country in the world to create "green finance" in 2016. In 2020, the President of the People's Republic of China said the government would achieve carbon neutrality by 2060 and peak carbon emissions by 2030. Enterprises plan to gradually switch to renewable energy sources like water, wind, and sun. In 2020, income from the transition to a "green economy" in China amounted to about 281 billion US dollars; in 2018, it was about 208 billion US dollars. The Chinese government has introduced strict fines for violations of environmental standards,

carbon dioxide emissions above the norm, and restrictions on issuing loans and land use. Chemical parks were also created and located in remote areas; chemical plants are located in chemical parks. By 2025, the plan is To move all chemical producers into chemical parks, subject to strict emissions controls. Based on the experience of China, we can conclude that this country is struggling with environmental problems associated with environmental pollution in all possible ways, using the latest systems of ecological engineering and technology, as well as with the allocation of financial resources from the government to improve the state of the environment.

UZBEKISTAN. The solution to environmental problems in the Republic of Uzbekistan is in the power of the government. The main direction of the new stage was the path of creating socioeconomic conditions that would contribute to the creation of a “green” and innovative economy, the development of digitalization, the training of highly qualified specialists, and the increasing level of income of the population. The objectives of the transition to a “green” economy are:

- Reducing atmospheric emissions.
- Supporting the processing of industrial and household.
- Modernizing technological processes to reduce air and water pollution.
- Improving the reclamation condition of irrigated lands.
- Reforestation.
- Expanding forest cover forest reclamation.
- Forest reclamation work on the dried bottom of the Aral Sea the construction.
- The construction of “green belts” around the cities of the Aral Sea region and industrial centers.
- The cessation of unauthorized use of subsoil.
- Strengthening control over the prevention of environmental pollution.

FEZ participants are major environmental polluters. In October 2021, significant emissions of pollutants occurred in the area of the Zarafshan River, and the death of wildlife in this river was also revealed. According to the State Committee for Ecology, the damage amounted to about 2.6 billion souls. Such situations are common in other SEZs. The development strategy of New Uzbekistan for 2022-2026 set the task of increasing GDP per capita by 1.6 times. The plan provides for the development of industrial policy, which aims to improve the volume of industrial production by 1.4 times and increase the export of high-tech products. The solution to this problem is using renewable energy sources and reducing emissions of pollutants in the environment. The Republic of Uzbekistan is adopting regulations to develop a “green” economy. The main acts are the “Strategy for the transition of the Republic of Uzbekistan to a green economy for the period 2019-2030”, the Concept of environmental Protection of the Republic of Uzbekistan until 2030, the Law "On Environmental Audit". Also, the Interdepartmental Council for the promotion and implementation of the "green" economy in the Republic of Uzbekistan was formed; the Ministry of Finance and Economy, as the successor to the Ministry of Economic Development, is authorized to develop the "green" economy, thereby coordinating the activities of responsible ministries and departments. However, it is worth noting that the Tax Code does not contain the concept of a "green" economy and environmental taxation. In this regard, introducing taxes and payments for ecological emissions must be more effective. For the first time, the theory of neutralizing external effects was put forward by A. Pigou, who explained the importance of establishing a direct tax on hydrocarbon emissions. Without strengthening the mechanisms of environmental taxation, it isn't easy to reorient the activities of large enterprises to produce environmentally friendly products and reduce emissions of pollutants into the environment. China has a comprehensive environmental taxation mechanism that applies to export activities. Taxes are levied on energy resources as fixed

excise taxes, depending on the fuel type. Special compensation payments apply for emissions of pollutants.

5 Conclusion

Uzbekistan has approved the Program for the transition to a "green" economy until 2030. It includes the following strategies:

- reduction of greenhouse gas emissions by 35% from 2010 levels;
 - increasing the production capacity of renewable sources to 15 GW and bringing their share in the total volume of electrical energy production to 30% or more;
 - increasing energy efficiency in industry by at least 20%;
 - reducing energy intensity per unit of gross domestic product by 30%, including through increased use of renewable energy sources;
 - increasing the efficiency of water use in all sectors of the economy, introducing water-saving irrigation technologies to an area of up to 1 million hectares;
 - expansion of green areas in cities to 30% or more by planting 200 million seedlings per year and bringing their total number to 1 billion;
 - increasing the recycling of household waste to 65%, etc.
- On the path to transition to a sustainable economy, Uzbekistan [7] faces severe challenges in achieving global indicators. To avoid dependence on high-cost technologies and systems, Uzbekistan should begin the process of "greening" the national economy. The "green" economy should become a priority, increasing resource use efficiency, developing employment, and financing "green" sectors of the economy; all this will benefit Uzbekistan. The abandonment of carbon-intensive and resource-intensive directions in the economy will affect the structure of investment and the creation of new jobs, leading to a division into those who benefited from this transformation and those whose well-being was negatively affected. In this situation, it is necessary to provide socioeconomic support to vulnerable population segments. The global transition to a "green" economy opens up several opportunities for socioeconomic growth and development; Uzbekistan should formulate public policy based on the country's sustainable development [8-25].

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