

ISSUES OF INTRODUCING GREEN BUDGETING IN THE CONTEXT OF THE
TRANSITION TO A GREEN ECONOMY IN UZBEKISTAN

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Abstract: The article scientifically and theoretically examines the necessity and importance of green financing. In particular, the reforms aimed at transitioning to a green economy and green financing in Uzbekistan are analyzed. The author proposes ways to expand green budgeting in the context of the transition to a green economy. Based on international experience, practical recommendations have been developed.

Keywords: green economy, green finance, green bonds, environmental innovations, environmental efficiency, green investment offices, green budget principles, green labeling.

INTRODUCTION

In recent years, ensuring economic growth while simultaneously protecting the environment and adhering to the principles of sustainable development has become one of the most pressing global issues. Traditional economic models have led to negative consequences such as excessive exploitation of natural resources, ecosystem degradation, and climate change. Therefore, the international community has increasingly focused on transitioning to a green economy model.

A green economy is considered an economic system that promotes efficient use of natural resources, reduces environmental risks, and ensures sustainable development. In this regard, green financing mechanisms play an important role in supporting environmental projects and sustainable economic development.

Uzbekistan has also begun implementing large-scale reforms aimed at transitioning to a green economy. These reforms are reflected in national development strategies and environmental policies focused on improving energy efficiency, developing renewable energy sources, and introducing innovative environmental technologies.

Main Part

The transition to a green economy requires the introduction of effective financial mechanisms and institutional reforms. One of the most important instruments in this process is **green budgeting**, which ensures the allocation of public financial resources to environmentally sustainable projects.

Green budgeting refers to the integration of environmental considerations into the planning and allocation of state budget expenditures. This mechanism allows governments to evaluate the environmental impact of budget programs and ensure that financial resources are directed toward sustainable development initiatives.

In Uzbekistan, the introduction of green budgeting can significantly contribute to improving environmental sustainability and strengthening economic resilience. The development of renewable energy sources such as solar and wind energy is particularly important in this regard.

Uzbekistan has significant potential for solar energy due to its climatic conditions. The country receives more than **3000 hours of sunshine annually**, which creates favorable conditions for expanding solar energy production. The implementation of solar power plants and other renewable energy projects can help reduce dependence on fossil fuels and lower greenhouse gas emissions.

Another important direction in green economic development is the efficient management of water resources. Water scarcity and inefficient water use remain major challenges for agriculture and industry in Uzbekistan. Therefore, the introduction of water-saving technologies, modern irrigation systems, and water recycling technologies is essential for sustainable resource management.

In addition, the development of environmentally friendly transport systems plays a key role in reducing carbon emissions. Expanding public transportation networks, promoting electric vehicles, and developing pedestrian and bicycle infrastructure contribute significantly to improving environmental sustainability.

Green financing instruments such as **green bonds, public-private partnerships (PPP), and international financial support** are essential for implementing environmental projects. Green bonds, in particular, have become one of the most effective financial instruments used globally to finance environmentally friendly initiatives.

For example, China has become one of the leading countries in the green bond market. In **2023, approximately 120 billion USD worth of green bonds** were issued to finance renewable energy projects, environmental protection initiatives, and sustainable infrastructure development.

Government subsidies also play a crucial role in supporting green technologies. Many countries provide financial incentives for the construction of solar and wind power plants, energy-efficient technologies, and environmentally friendly transport systems. In Uzbekistan, similar measures are being implemented within the framework of the national strategy for the transition to a green economy.

Another important financing mechanism is **Public-Private Partnership (PPP)**. This model allows the government and private sector to combine their financial resources and expertise to implement large-scale environmental projects. In many European countries, PPP mechanisms have been widely used to develop green transport infrastructure and renewable energy facilities.

International financial institutions also actively support green economic development. Organizations such as the **World Bank and the Asian Development Bank** provide concessional loans, grants, and technical assistance for renewable energy projects, energy efficiency improvements, and environmental protection programs.

Furthermore, innovative financial technologies are increasingly being used to support green financing. Digital financial instruments, blockchain-based platforms, and green banking services enhance transparency and efficiency in financing environmental initiatives. These innovations help attract investors and accelerate the transition to a sustainable green economy.

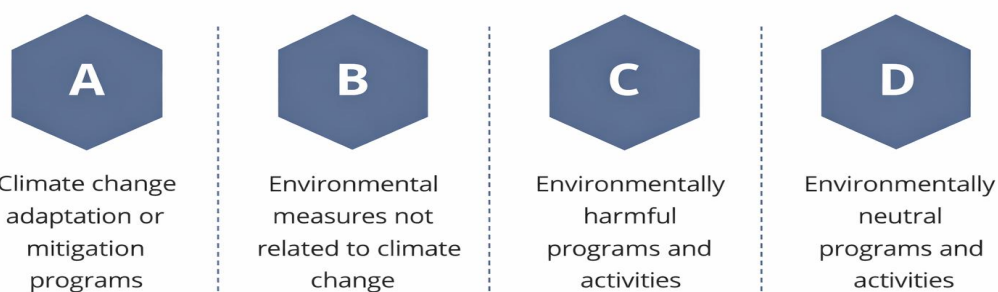


Figure 1. Categorization of budget flows based on “green” budgeting principles

According to the results of the classification of the 2024 State Budget expenditures (310.9 trillion UZS) based on the principles of green budgeting:

Expenditures under Category “A” amount to 27.5 trillion UZS, which accounts for 8.8% of total expenditures. This category includes expenditures related to the maintenance of water management organizations and water supply measures (water-related activities play an important role under climate change conditions), expenditures aimed at the socio-economic development and improvement of regions (infrastructure development and urban improvement activities in the regions are considered climate adaptation measures), expenditures for forestry, ecology, environmental protection, and the maintenance of the Ministry of Ecology, Environmental Protection and Climate Change, as well as expenditures related to public transportation and other activities that have a positive impact on environmental objectives.

Expenditures under Category “B”, which include activities that have a combination of positive and negative impacts on environmental objectives, amount to 9.7 trillion UZS, accounting for 3.1% of total expenditures. This category includes expenditures on geological exploration activities (although such activities may have negative environmental impacts, they also help identify minerals necessary for low-carbon activities), as well as expenditures related to the Committee for Veterinary and Livestock Development and its regional divisions (while veterinary services help animals adapt to the effects of climate change, livestock activities themselves may negatively affect climate change).

Expenditures under Category “C”, which include activities that have a negative impact on at least one environmental objective and do not produce a positive impact, amount to 0.5 trillion UZS, representing 0.1% of total expenditures. This category includes activities that lead to increased greenhouse gas emissions, higher water consumption, environmental pollution, and actions that negatively affect biodiversity and ecosystems.

Expenditures under Category “D”, which include activities that have a neutral impact on all environmental objectives, amount to 273.3 trillion UZS, accounting for 87.9% of total expenditures. This category mainly includes administrative and operational expenditures related to maintaining organizations that do not have any direct impact on climate change or environmental objectives.

Table 1

Results of the classification of state budget expenditures based on green budgeting principles in 2023–2025 (trillion UZS)

Categories	2023 (executed)	%	2024 (approved)	%	2025 (forecast)	%
Total	281.1	100	312.9	100	344.6	100
A Category	39.1	13.9	32.0	10.2	26.4	7.7
B Category	7.2	2.6	7.4	2.4	8.5	2.5
C Category	0.9	0.3	2.4	0.8	1.3	0.4
D Category	233.9	83.2	271.4	86.6	308.4	89.4

The results presented in Table 1 show the dynamics of state budget expenditures classified according to green budgeting principles for the period 2023–2025. The total volume of state budget expenditures demonstrates a steady increase, rising from 281.1 trillion UZS in 2023 to 312.9 trillion UZS in 2024, and it is projected to reach 344.6 trillion UZS in 2025.

Expenditures classified under Category A, which include activities with a positive impact on environmental objectives, show a gradual decline in their share within the total budget. Specifically, the share of these expenditures decreases from 13.9% in 2023 to 10.2% in 2024,

and further to 7.7% in 2025. This trend indicates that despite the growth of overall budget expenditures, the relative proportion allocated to environmentally beneficial activities is decreasing.

Expenditures under Category B, representing activities that have both positive and negative environmental impacts, remain relatively stable during the analyzed period. Their share fluctuates slightly between 2.4% and 2.6%, suggesting that the scale of such mixed-impact expenditures has not significantly changed.

Meanwhile, expenditures classified under Category C, which have a negative impact on environmental objectives, account for a very small proportion of total expenditures. Their share ranges from 0.3% in 2023 to 0.8% in 2024, and 0.4% in 2025, indicating that environmentally harmful expenditures are relatively limited within the structure of the state budget.

The largest share of expenditures falls under Category D, which includes activities with a neutral impact on environmental objectives. The share of this category increases from 83.2% in 2023 to 86.7% in 2024, and is expected to reach 89.4% in 2025. This indicates that a significant portion of state budget expenditures does not directly contribute to environmental or climate-related objectives.

Overall, the analysis suggests that although Uzbekistan has begun implementing green budgeting principles, the share of expenditures directly contributing to environmental objectives remains relatively low. Therefore, strengthening the integration of environmental priorities into the budget planning process and expanding expenditures that support climate mitigation and adaptation measures would enhance the effectiveness of green budgeting policies.

CONCLUSION

In conclusion, the transition to a green economy requires the implementation of effective financial mechanisms, institutional reforms, and innovative technologies. Green budgeting can play a crucial role in ensuring that public financial resources are allocated to environmentally sustainable projects.

For Uzbekistan, expanding green budgeting practices will help improve environmental protection, enhance energy efficiency, and support sustainable economic development. Strengthening cooperation between the government, private sector, and international financial institutions is essential for successfully implementing green economic reforms.

The adoption of international best practices and the development of innovative financial instruments will further accelerate the transition to a green economy and contribute to achieving long-term sustainable development goals.

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