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THE ROLE OF GREEN FINANCIAL INSTRUMENTS IN THE SUSTAINABLE TRANSFORMATION OF THE TOURISM SECTOR

Jelena Vapa Tankosić¹; Katarina Soleša²; Sanda Nastić³

Abstract

The modern tourism sector is facing changes in consumer preferences as well as evolving regulatory requirements. In addition, climate change has intensified the need for a sustainable transformation of the tourism industry. In this transformation process, green financial instruments serve as a key mechanism for mobilizing capital toward projects that contribute to carbon dioxide reduction, improved energy efficiency, the development of renewable energy sources, and the preservation of natural resources in tourism. The aim of this paper is to analyze the types of green financial instruments used in tourism, evaluate their potential effects, and compare their application in the European Union and the Republic of Serbia. The research findings indicate that green financial instruments play a crucial role in supporting sustainable tourism development.

Key Words: *green financial instruments, sustainable tourism, ESG, green bonds, energy efficiency.*

JEL classification: O23, L83, Z33

Introduction

A green economy is one in which the vital links between the economy, society, and the environment are taken into account. It promotes the transformation of production processes and consumption patterns, contributes to the reduction of waste and pollution, and encourages the

¹ Jelena Vapa Tankosić, Full Professor, Faculty of Economics and Engineering Management in Novi Sad, Cvečarska 2 Novi Sad, +381 21 400 484, jvapa@fimek.edu.rs

² Katarina Soleša, Phd student, Faculty of Economics and Engineering Management in Novi Sad, Cvečarska 2 Novi Sad, +381 21 400 484, katarina.solesa@fimek.edu.rs

³ Sanda Nastić, Full Professor, Faculty of Economics and Engineering Management in Novi Sad, Cvečarska 2 Novi Sad, +381 21 400 484, sanda.nastic@fimek.edu.rs

efficient use of resources, materials, and energy. Building on the concept of a green economy, green tourism represents a practical application of these principles within the tourism sector. It connects economic development with environmental conservation and social responsibility. The aim of green tourism is to ensure that tourism activities minimize negative impacts on natural resources while promoting the long term development and well being of local communities. Today, awareness of the importance of environmental protection and the need to reduce energy consumption has increased. The development and implementation of sustainable practices in tourism have become crucial. It can be argued that investing in projects that generate positive environmental impacts provides concrete solutions for reducing energy consumption and greenhouse gas emissions. Green financing encompasses a wide range of financial instruments. This paper examines the role of instruments such as green bonds, green loans, sustainable investment funds, and ESG financing. The focus is placed on the economic effects of implementing green financial instruments. These instruments are specialized mechanisms designed to channel capital toward projects that deliver environmental benefits and contribute to sustainable development. Despite the growing importance of green finance, existing research predominantly focuses on its application in general economic sectors, while its role in the tourism sector remains insufficiently explored, particularly in Serbia. Moreover, there is a lack of critical assessment regarding the effectiveness and limitations of green financial instruments in tourism. The research problem addressed in this paper is the insufficient understanding of how green financial instruments contribute to the sustainable transformation of the tourism sector.

Literature Review

Sustainable tourism should be considered a potential pathway to achieving sustainable development. Three main dimensions of sustainability are essential for achieving sustainability through tourism (Ivanović et al., 2016): environmental sustainability (which focuses on the rational use of natural resources and the reduction of pollution), social and cultural sustainability (which emphasizes the protection of local identity, traditions, and community well-being), and economic sustainability (which ensures long-term profitability, competitiveness, and fair income distribution). In this context, sustainable tourism should be regarded as a potential pathway toward achieving broader sustainable development goals. Green finance refers to financial investments,

products, and services that support environmentally sustainable projects and initiatives. Despite the benefits of green financing, the tourism industry faces several challenges. High upfront costs can hinder small and medium-sized hotels, while accessing subsidies often involves complex, time-intensive procedures. Implementing advanced technologies also requires staff training and system adaptation. Nonetheless, long-term cost savings, enhanced competitiveness, positive environmental impacts, and growing consumer sustainability awareness provide strong incentives for adopting green practices (Sangwan & Vyas, 2023). A substantial increase in green finance is expected, as upcoming generations of tourists hold strong environmental values and thus prefer financial institutions that provide sustainable services. Consequently, green financing plays a significant role in reducing carbon emissions and supporting the sustainable development of tourism (Xu & Wang, 2023). Green finance enables the acquisition of innovative green technologies that improve energy efficiency. According to Kwilinski et al. (2025): there are significant impacts of green finance, economic growth, innovation, urbanization, and international trade on enhancing environmental, social, and governance (ESG) performance. The long-term development of tourism is based on continuous economic growth, which must be accompanied by socially responsible business practices (Anđelković et al., 2024). In the Republic of Serbia findings show that among bank clients, there is high environmental consciousness and a willingness to use green products (Ivaniš et al., 2025).

Research Methodology

This paper is based on a qualitative research approach, combining a literature review and comparative analysis. The research relies on secondary data sources, such as academic publications and institutional reports. The authors have analysed the existing studies on green financial instruments in order to identify their main characteristics, advantages and limitations. A comparative analysis is applied to study the implementation of green financial instruments in the European Union and the Republic of Serbia. The analysis is limited to available secondary data and does not include primary empirical research. The research questions address the following: Which types of green financial instruments are most commonly used in the tourism sector? What are the main limitations and challenges in their application, particularly in developing markets?

Results and discussion

The role of green financial instruments in tourism is increasingly important as this industry seeks to reduce environmental impacts while supporting sustainable development. Green financial instruments enable the reduction of tourism's negative environmental impact, improve energy efficiency and support investments in innovative technologies. They also contribute to the economic sustainability of enterprises, enhance competitiveness and involve local communities in tourism development. Common examples of green financial instruments include:

- - Green bonds - unlike conventional bonds, green bonds support the financing of projects aimed at mitigating the effects of climate change. Proceeds are used exclusively to finance or refinance eligible green investments (European Bank, 2025).
- - Green loans - provide funding for individuals, businesses, and governments to carry out environmentally responsible projects. These loans are specifically designed to support initiatives that are both financially viable and ecologically sustainable. Consequently, they often come with lower interest rates to encourage green investment. (Janković, 2025).
- - Green investment funds - investment funds that invest in tourism projects with an ecological mission.
- - Sustainability-linked loans - loans with terms linked to achieving environmental targets.

The effectiveness of these instruments depends on accessibility, regulations, and the development of financial markets, which differ between the European Union and developing countries like Serbia. Despite these advantages, the effectiveness depends on several factors such as availability of financing, the regulatory framework and the level of development of financial markets. While the European Union has well-developed mechanisms to support green finance and clearly defined regulatory standards, emerging markets face challenges such as limited access to funding, high initial costs and insufficient education and preparedness of enterprises for implementing sustainable practices. Implementing ESG policies is understood as key strategy for achieving sustainable development of financial institutions in all environments (Vapa Tankosić et al., 2025). Based on the report *Financial Tools for Sustainable Tourism* (2026), some of the financial instruments for SMEs in tourism include the following:

Table 1: *Key EU Funding Instruments for Tourism Small and Medium Enterprises*

Instrument	Responsible Authority	Support Type	SME-Relevant Features
Single Market Programme	European Commission (DG Grow)	Grants, technical support	Strengthen the competitiveness, sustainability, and skills of SMEs
LIFE Programme	CINEA	Grants, pilot project	Supports initiatives focused on environmental sustainability, circular economy and climate mitigation.
Horizon Europe (Clusters 4,6)	European Commission	R&D grants, co-creation	Supports digital, industrial, and green innovation with strong involvement of small and medium-sized enterprises
InvestEU (Sustainability and Digital Windows)	EIB Group + national banks	Loans, guarantees, equity	Mobilizes private capital to support green, social, and digital SMEs.
Digital Europe Programme	European Commission (DG Connect)	Grants, capacity building	Promotes the development of AI, cybersecurity, advanced digital skills, and SME digital transformation.
European Innovation Council Accelerator	EISMEA	Blended finance (grants + equity)	Finances innovative breakthroughs by SMEs in green and digital sectors.
European Regional Development Fund / Cohesion Funds	National / regional authorities	Grants, guarantees	Enhances regional SME sustainability, fosters innovation in tourism, and improves connectivity.
COSME (legacy, now integrated in SMP)	EISMEA / EEN	Guarantees, advisory	Enables SMEs to access financing opportunities and expand into international markets.

Source: *Financial tools for Sustainable tourism, 2026.*

Key EU funding instruments provide SMEs with access to grants, loans, and blended finance, emphasizing environmental sustainability, digital transformation, and competitiveness.

Banks from Central and Southeastern Europe have recognized the opportunities and are acting in line with the development of new green financing techniques. They cooperate with multinational institutions such as the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development to support the implementation of the European Green Deal and contribute to making the continent the world's first climate-neutral one. The banks that received awards for their financial support within the Sustainable Finance Awards 2026: Central Eastern Europe are presented in Table 2.

Table 2: *Regional Winners in 2026*

Regional Winners (2026)	Bank
Best Bank for Sustainable Finance	Raiffeisen Bank
Sustainable Finance Deal of the Year	Garanti BBVA
Best Impact Investing Solution	Akbank
Best Platform/Technology Facilitating Sustainable Finance	PKO Bank Polski
Circular Economy Commitment Award	VUB
Best Bank for Sustaining Communities	Garanti BBVA
Best Bank for Sustainability Transparency	Akbank
Best Bank for Sustainable Infrastructure/Project Finance	Bank Pekao
Best Bank for Blue Bonds	QNB Bank A.S.
Best Bank for Green Bonds	Raiffeisen Bank
Best Bank for Social Bonds	Akbank
Best Bank for Sustainability Bonds	Raiffeisen Bank
Best Bank for ESG-Related Loans	Raiffeisen Bank
Best Bank for Transition/Sustainability Linked Loans	Bank Pekao

Source: *Sustainable Finance Awards 2026: Central Eastern Europe*, by Global Finance, 2026.

Banks in Central and Southeastern Europe actively support green finance, collaborating with international institutions.

In the Republic of Serbia, small and medium-sized enterprises (SMEs) are increasingly recognizing the potential of green investments, which are primarily focused on modernizing equipment and technologies in order to reduce energy and resource consumption. In addition, a significant share of green investments includes the installation of solar panels as well as improvements in waste management systems. Although many companies rely on their own resources to finance these projects, they are increasingly using external sources of financing, including subsidies, loans, and other incentive mechanisms. However, for larger projects and long-term

initiatives, SMEs tend to rely more on external financing sources, such as loans from international financial institutions, commercial banks, public–private partnerships, and subsidies.

Examples of sustainable initiatives in tourism in Serbia include the construction of eco-hotels and the renovation of tourist facilities using energy-efficient systems, such as the eco-resort on Fruška Gora and energy-renovated hotels in Vrnjačka Banja. Some hotels have installed solar panels and modernized their heating and air-conditioning systems. There are also financial incentives, whereby hotels that reduce CO₂ emissions or the amount of waste can obtain loans with lower interest rates. In addition, eco-tourism centers and projects are being developed in protected areas such as Tara National Park and Kopaonik National Park, with a focus on environmental protection and the use of renewable energy sources. Government support, including programs of the Ministry of Tourism and Youth of the Republic of Serbia, provides subsidies for solar panels in hotels as well as waste-management projects funded by the European Union. Sustainable tourism is also promoted through eco-trails, cycling and walking routes, as well as rural tourism complexes in destinations such as Zlatibor and Stara Planina. In 2021, the Government of the Republic of Serbia issued its first green bond on the global market, amounting to EUR 1 billion. The funds raised through this bond are allocated to six key sectors that support sustainable development: renewable energy, energy efficiency, transport, sustainable water and wastewater management, environmental protection and pollution prevention and control, as well as the protection of the environment, biodiversity, and sustainable agriculture (Serbia Green Bonds reporting, 2022).

Table 3: *Funding by sector and by year 2023/2024 – Green bonds*

Sector/Year	2023 (eur)	2024 (eur)	Q1/2025	Share of total proceeds %
Protection of environment and biodiversity	11,097,645	9,972,483	-	1,9%
Pollution prevention and control	14,036,608	6,875,02	-	1,9%
Sustainable water and wastewater management	10,042,261	15,704,057	1,099,744	2,5%
Energy efficiency	3,518,629	8,836,904	86,015	1,1%
Transport	54.915.831	107.512.114	3.636.357	15,1%

Access to education	62,388,954	68,973,435	26,420,575	14,3%
Healthcare	131,226,684	141,523,951	8,298,822	25,5%
Food security and sustainable food systems	699,004	-	-	0,1%
Socioeconomic advancement	383,835,451	30,172,774	4,576	37,6%
Total	671,761,068	389,570,781	39,546,088	100,0%

Source: *Serbia's sustainable bond report, 2025*.

“Socioeconomic advancement and empowerment is the top-funded category, receiving 37.6%, under scoring Serbia’s focus on vulnerable groups, rural development, and inclusive economic growth. Health-care (25.5%) and education (14.3%) are also highly prioritized. Green sectors received share of proceeds is 17.9%, out of which transport is the most funded green category (15.1%). Environmental protection (biodiversity, pollution, water, circular economy) received under 7% combined, while energy efficiency received 1.1%” (Serbia’s sustainable bond report, 2025). In Serbia, green bonds primarily finance social and infrastructure projects, with green sectors receiving a smaller share of proceeds, highlighting a gap between funding allocation and environmental priorities.

Conclusion

This paper shows that green finance plays a key role in supporting sustainable tourism by enabling investments in energy efficiency, renewable energy sources and environmentally friendly infrastructure. In the European Union, there are well-developed financing mechanisms and clear regulatory standards, which helps these instruments to be widely accepted. In Serbia, their availability remains limited. Despite the challenges in implementation, green finance in Serbia has shown growth over the past decade, supported by international financial institutions and European Union programs. According to data from the European Bank for Reconstruction and Development significant investments have been made in Serbia through hundreds of projects, with significant share directed toward the green transition, including energy efficiency, renewable energy and sustainable infrastructure. In order to further advance sustainable tourism, it is recommended that policymakers and financial institutions in Serbia develop incentives for environmentally responsible investments. The limitations of this research primarily stem from its reliance on secondary data sources. Future research could

incorporate quantitative methods or case studies to provide a deeper assessment of the effectiveness of green financial instruments in tourism.

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