

Green Finance and Their Role in a Sustainable Economy: The case of Albania

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Abstract: This study examines the role of green finance in supporting Albania's transition toward a sustainable economy. It combines a theoretical review of sustainable finance instruments, ESG criteria, and international practices with empirical research based on surveys of financial institutions, businesses, and institutional actors in Albania. The findings show growing awareness of green finance, but practical implementation remains limited due to unclear legal frameworks, limited technical capacity, and a lack of fiscal incentives. Despite these barriers, most institutions express willingness to engage in green finance if supportive policies are introduced. The study concludes that Albania has strong potential to develop a sustainable financial system and recommends establishing a national taxonomy, promoting investment in key sectors such as clean energy and agriculture, and strengthening market education on sustainability.

Keywords: Green finance; sustainable development; green economy; ESG; Albania; European Union Taxonomy; climate finance; priority sectors; public policy; sustainable financial markets.

1 Introduction

Climate change and environmental degradation have intensified global efforts to transform economic systems toward sustainability. The increasing frequency of extreme weather events, biodiversity loss, and energy insecurity has highlighted the urgency of redirecting financial flows toward environmentally responsible investments. In this context, green finance has emerged as a strategic mechanism for supporting sustainable economic transformation.

Green finance refers to financial instruments and investments that promote environmental protection, climate change mitigation, renewable energy, energy efficiency, and sustainable resource management. International agreements such as the Paris Agreement and policy initiatives like the European Green Deal have reinforced the importance of aligning financial systems with climate objectives.

As a candidate country for membership in the European Union, Albania faces increasing pressure to harmonize its regulatory and financial systems with European sustainability standards[1]. Although the country has made progress in renewable energy development and environmental policy reforms, green finance remains at an early stage of development [2] [3].

The main objective of this paper is to analyze the role of green finance in supporting sustainable economic transition in Albania, identify current challenges, and assess future opportunities through empirical evidence.

2 Literature Review

2.1 Concept of Green Finance

Green finance encompasses financial activities that support environmentally sustainable projects. It includes green bonds, green loans, climate funds, ESG investments, and sustainable banking practices. Unlike traditional finance, green finance integrates environmental risk assessment into financial decision-making.

The concept is closely linked to sustainable development, which balances economic growth, environmental protection, and social inclusion. Financial institutions increasingly incorporate Environmental, Social, and Governance (ESG) criteria to evaluate long-term risks and performance [4] [5].

2.2 Green Financial Instruments

The prevailing taxonomy of green financial instruments comprises several specialized capital-allocation mechanisms designed to align investment portfolios with environmental objectives. Foremost among these are green bonds, structured debt securities explicitly earmarked for financing environmentally sustainable initiatives, and green loans, which provide targeted credit lines for renewable energy deployment, energy efficiency enhancements, and sustainable infrastructure development [6] [7].

Concurrently, sustainable investment funds operationalize capital management by systematically prioritizing entities that demonstrate compliance with

Environmental, Social, and Governance (ESG) criteria. On a macroeconomic scale, climate finance mechanisms serve as essential international funding channels engineered to assist developing and emerging economies in implementing comprehensive climate mitigation and adaptation strategies [8].

Empirical studies suggest that ESG integration can reduce long-term financial risks and improve resilience. Companies with strong sustainability performance often demonstrate better risk management and investor confidence.

2.3 International Policy Framework

Global institutions such as the World Bank and the European Bank for Reconstruction and Development play a significant role in financing green projects in emerging economies. Their initiatives include climate investment funds, renewable energy financing programs, and sustainable infrastructure development.

The European Union has introduced a sustainability taxonomy and disclosure regulations to guide financial markets toward green investments. These developments influence candidate countries, including Albania, by encouraging regulatory alignment and institutional reform [9] [10].

3 Methodology

This study applies a combined theoretical and empirical approach.

The theoretical part is based on a review of international literature, policy documents, and institutional reports related to green finance and sustainable development.

The empirical research is based on a structured questionnaire distributed to representatives of financial institutions, private businesses, and public sector stakeholders. A non-probabilistic sampling method was used due to limited access to a comprehensive sampling frame. The questionnaire included closed-ended questions measuring:

- Awareness of green finance concepts
- Willingness to invest in green projects
- Perceived barriers
- Institutional readiness

Data were analyzed using descriptive statistical methods, including percentage distributions and comparative evaluation.

4 Green Finance in Albania

This section provides a comprehensive overview of the Green Finance landscape in Albania, depicting a sector currently in its foundational stages. While the country lacks a dedicated national green taxonomy or specific finance laws, sustainability is increasingly being integrated into national strategies as part of the broader EU integration process. At present, the ecosystem is largely driven by international financial institutions and development partners, though domestic commercial banks have begun introducing modest green loan products for solar energy and building efficiency [11].

Significant progress has been noted in the expansion of photovoltaic power plants and energy efficiency programs for SMEs; however, these investments still represent a minor portion of Albania's total financial flows. The primary obstacles to further growth include a lack of standardized regulatory frameworks, high perceived initial investment costs, and a significant gap in technical expertise within local financial institutions for assessing green risks and sustainability disclosures [12].

4.1 Regulatory Framework

Albania does not yet have a dedicated green finance law or a national green taxonomy. However, sustainability objectives are integrated into broader strategic documents, including national development and energy strategies. Since Albania's regulatory trajectory is heavily driven by its EU integration goals incorporating foundational and impact-based studies on the EU Taxonomy adds vital regulatory context.

Literature examines the EU Taxonomy as a cornerstone of European sustainable finance, detailing how this science-based classification framework acts as a vital transparency instrument to combat greenwashing and guide institutional capital toward environmentally sustainable economic activities. The literature review highlights the framework's dual role in enabling data-driven investor decisions and providing companies with the necessary metrics to finance credible transitions to net-zero [13].

The alignment with the EU Taxonomy significantly enhances corporate market value and operational efficiency. They also investigate how macroeconomic and policy uncertainties impact long-term green bond markets, which supports your analysis of Albania's regulatory gaps [14] [15].

Ahmed, Yusuf, and Ishaque offer empirical evidence that green bonds serve as an operational bridge to achieving the United Nations Sustainable Development Goals (SDGs) related to the environment, acting as a crucial tool for climate change mitigation [6]. Complementing this macro-level view, Maltais and Nykvist provide

a comprehensive review of how these financial mechanisms actually function in advancing sustainability, exploring their broader societal impact and structural effectiveness [16]. Together, they demonstrate that green bonds are essential vehicles for transforming high-level international climate commitments into measurable environmental additions.

The country's EU integration process requires gradual alignment with European environmental *acquis*. While progress has been made in renewable energy legislation, financial market regulations still lack explicit sustainability disclosure requirements [17].

The absence of a standardized framework creates uncertainty for investors and limits the development of green financial products.

4.2 Main Actors

Green finance initiatives in Albania are primarily supported by international financial institutions and development partners. Programs promoting renewable energy, energy efficiency, and SME sustainability have been introduced through development banks and donor-supported credit lines.

Domestic commercial banks have started offering limited green loan products, particularly for solar energy and building efficiency. However, these products remain small in scale.

Public institutions play a coordinating role, but institutional capacity and technical expertise require further strengthening.

4.3 Key Projects

Several renewable energy projects, particularly photovoltaic power plants, have been developed in recent years. Energy efficiency programs targeting households and small businesses have also been supported through dedicated credit lines.

Huang demonstrates that green bonds and Environmental, Social, and Governance (ESG) investments function as vital catalysts for sustainable finance, driving green economic growth even within resource-abundant or developing economies [4]. Complementing this macro-level perspective, literature provides that firm-level empirical evidence establishing a clear relationship between a company's multi-dimensional ESG performance and its corporate capacity to successfully issue green bonds [5] [18]. Together, they underscore that integrating robust ESG frameworks is not just a risk-mitigation tool, but a foundational driver for mobilizing green capital and advancing sustainable development [19].

Green financing has contributed to:

- Expansion of solar energy capacity
- Improvement of building insulation standards
- Reduction of energy consumption in SMEs
- Modernization of public infrastructure

Despite these achievements, green investments remain a relatively small portion of total financial flows.

4.4 Implementation Barriers

The main barriers to green finance development in Albania include:

- Lack of a national green taxonomy
- Limited financial incentives
- Insufficient awareness among businesses
- Perceived high initial investment costs
- Limited risk-sharing mechanisms

Additionally, financial institutions often lack specialized expertise in assessing environmental risks.

5 Findings

The empirical results indicate moderate awareness of green finance concepts among respondents. Financial institutions demonstrate higher familiarity compared to small businesses.

A significant percentage of respondents expressed willingness to invest in green projects if supported by:

- Government guarantees
- Tax incentives
- Preferential interest rates

The main obstacles identified include regulatory uncertainty, high upfront costs, and lack of technical guidance.

The provided table below highlights the transitional state of green finance in Albania, where regulatory frameworks are currently shaped by EU integration rather than independent national legislation. This top-down approach has created a market led primarily by International Financial Institutions (IFIs), with domestic banks only beginning to pilot specialized products for renewable energy and efficiency.

Category	Key Findings
Regulation	No specific law or taxonomy; driven by EU <i>acquis</i> alignment.
Primary Actors	Led by IFIs; domestic banks offer limited solar and efficiency loans.
Successes	Solar energy growth, SME modernization, and public infrastructure updates.
Barriers	Lack of incentives, low awareness, and limited risk-sharing mechanisms.

Table.1.
Summarized findings

While tangible successes are visible in solar energy expansion and SME modernization, the transition is slowed by significant barriers, including a lack of financial incentives and limited risk-sharing mechanisms. Ultimately, the data suggests that while the foundation is being laid through infrastructure projects, the sector requires a more standardized taxonomy and increased local expertise to move beyond its current niche status.

The findings suggest that although structural limitations exist, market demand for green financial products is emerging. This indicates strong potential for expansion if institutional reforms are implemented.

Conclusions

Green finance represents a strategic instrument for supporting Albania's transition toward a sustainable economy. While the country has made progress in renewable energy development and policy alignment with European standards, the financial sector's integration of sustainability principles remains limited.

The study highlights three key priorities:

1. Development of a national green finance strategy and taxonomy.
2. Introduction of fiscal incentives and risk-sharing mechanisms.
3. Strengthening institutional capacity and financial literacy.

If these measures are implemented, green finance can significantly contribute to economic modernization, environmental protection, and EU integration objectives.

The transition toward sustainability in Albania is not only an environmental necessity but also an economic opportunity that requires coordinated action between the public and private sectors.

Acknowledgement 10

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